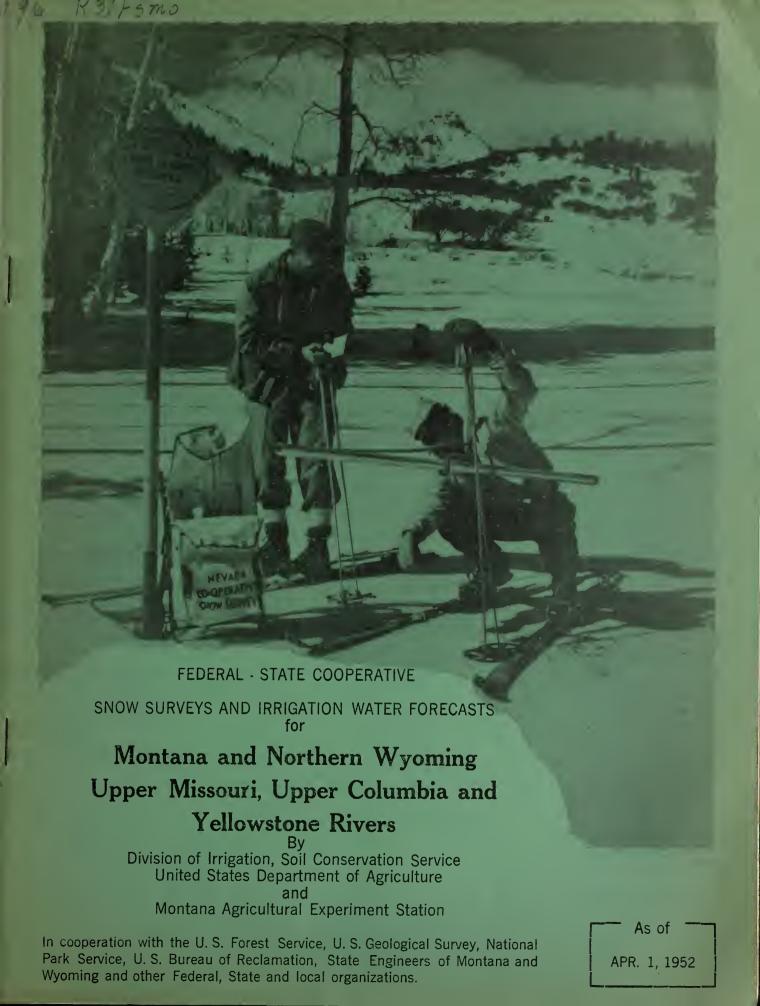
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### FEDERAL-STATE COOPERATIVE SNOW SURVEYS

AND

### IRRIGATION WATER FORECASTS

FOR

MONTANA and NORTHERN WYOMING

Upper Missouri and Upper Columbia River
Basins

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## IRRIGATION WATER SUPPLY OUTLOOK FOR SEASON 1952 AS OF APRIL 1, 1952

April 1 snow measurements made over the Upper Missouri and Upper Columbia River Basin indicate a good supply of irrigation water for this coming season. The Upper Columbia Basin, in Montana, is slightly above average. The snow accumulation during March has been below average. The snow pack at the present time over the entire basin averages approximately 112 to 130% of average, with a few high and low spots. The snow pack over the Upper Missouri Basin in Montana is excellent this season, basin-wide about 140% average. The Sun River is still a bit low but very close to normal conditions. The Wind River Basin in Wyoming is slightly below average, ranging from 70 to 112% of average. The Popo Agie River Basin is in very excellent condition this season. The snow pack is 183% average basin-wide. Reservoir storage throughout the State of Montana and Northern Wyoming is very satisfactory for April 1. There is still a slight shortage of water to come for the Wind

JEFFERSON RIVER: April 1 snow surveys indicate a good supply of water for the irrigation season of 1952. Snow courses in the upper reaches of the Beaver-head and Rock Creek River average 122% of a 5-year average. In the Horse Prarie Basin, snow measurements show a 98% average snow pack for this season. At Big Hole River Basin, snow survey courses show 108% average. The Big Hole River at Melrose will flow approximately 650,800 acre feet during the runoff period May-September, or approximately 98% average. The Wise River drainage indicates 121% average. The Ruby River Basin is probably the highest of the group, showing approximately 140% average. Valley precipitation in the Jefferson Valley shows above normal accumulation for the season October through March.

River of Wyoming and the Sun River of Montana.

MADISON RIVER: In the Madison River Basin, the snow pack on April 1 averages approximately 160% average. The Madison River at West Yellowstone will flow approximately 211,500 acre feet during May-September, or 124% average.

GALLATIN PIVER: The snow pack on the Gallatin River averages approximately 152% average for the past 14-16 years. The Gallatin River at Gateway will flow approximately 552,900 acre feet of water during May-September, with approximately 367,000 acre feet coming during May and June. These figures average about 145% of the past 10-year average.



MISSOURI RIVER MAIN STEM: The main Missouri below Three Forks will carry an axcellent supply of water during the irrigation season, averaging above 136% of average.

SUN AND TETON RIVERS: The Teton River will flow somewhat less than average during the Spring season. The snow pack indicates an average of 93%. The North Fork of the Sun River snow courses show slightly below average while those on the South Fork show somewhat above average conditions. The Basin as a whole will average about 100%.

UPPER YELLOWSTONE RIVER: The Upper Yellowstone River, from the Park to Billings, is covered with an excellent snow pack averaging approximately 135% average. During the May-September runoff period, it is expected that 2,237,000 acre feet of water will pass Corwin Springs, or approximately 128% average. The Shields River snow courses show an excellent snow pack averaging approximately 160% average.

LONER YEILOWSTONE RIVER (WYOMING): The Popo Agie River at the extreme southern portion of the Basin has an excellent snow pack this season, average being 183%. The North Fork of the Popo Agie should flow approximately 124,000 acre feet of water between April and September, or about 162% average. The main Wind River, above Diversion Dam, averages slightly below normal 85% average. The smaller tributaries lying to the south of the main Wind River show heavier snow pack, or 127% average. It is expected that the Wind River at Riverton will show 528,700 acre feet between April and September, or 99% average. The tributaries to the Big Horn River, below Boysen Dam, have a fair snow pack, showing 101% of the average conditions. The Shoshone River above Buffalo Bill has a fair snow pack averaging 120% and should produce approximately 917,000 acre feet of water below Buffalo Bill Reservoir during the April-September Runoff season.

TONGUE AND POWDER RIVERS (WYOMING): The Upper basins of the Tongue and Powder Rivers have a good snow pack this season, averaging close to normal for April 1; the Tongue, 113% average and 99% average for the Powder River. The Middle Fork of the Powder at Kaycee should flow 56,900 acre feet between April and September. The Tongue River should flow 133,680 acre feet past Dayton between April and September. Big Goose Creek should pass approximately 79,520 acre feet during the same period. All of the volumes of flow are between 110% and 123% average for the past ten years.



COLUMBIA RIVER BASIN: The tributaries to the Upper Columbia River in Montana above Herron show a generally good water supply for this coming season. The North Fork of the Flathead River Basin shows a snow coverage of approximately 110%. It is expected that 1,827,000 acre feet of water will pass Belton during the April-September season.

The Middle Fork of the Flathead above Belton will flow approximately 2,155,000 acre feet of water, or 134% average for the April-September period. The South Fork of the Flathead near Columbia Falls, just below Hungry Horse Dam, shows a good water supply; not as large as last year, nor the three years previous. It is expected that 2,751,000 acre feet of water will flow into the dam during the April-September period. This is 136% of the ten-year average ending in 1950. It is anticipated that the large portion of this water will flow in the April, June, July period than normal, being approximately 2,630,000 acre feet. The Flathead River at Columbia Falls should produce approximately 7,104,000 acre feet of water between April 1 and September 30.

The Clarks Fork River Basin, above Missoula, has a good snow pack for April 1, averaging approximately 135% average. By analyzing the comparative figures shown in the table for this basin, it is evident that at many snow survey courses, there is as much or more water in the snow as we had in 1948. This condition is somewhat spotted throughout both of the main tributaries to the Clarks Fork above Herron. This condition could, with the proper meterological sequence of events, produce as high water as we experienced in 1948. However, the past three years have been equally high and no severe damage occurred from the melting of high elevation snow. Volume forecasts for the April-September and April-July runoff seasons are listed on the following pages for the principal gaging stations on the tributaries and main stem for the Clarks Fork and Flathead River to the Idaho line at Herron.



AFRIL 1, 1952

MISSCURI RIVER BASIN IN MONTAWA
PRELIMINARY ESTIMATES OF SEASONAL RUNOFF
(1000'S acre feet)

| NAME OF STREAM AND STATION  | Season<br>May-June                                | Senson<br>July-Aug-Sept.                           | Season<br>May-Sept.                                | 10 yr. % Avg.                                 |
|---|---|--|--|---|
| Gallstin River at Gallatin Gateway Gallstin River at Logan Madison River at West Yellowstone North Fork Musselshell at Delphine Judith River near Utica Yellowstone River at Corwin Springs Big Hole at Welrose | 367.5<br>400.0<br>119.8<br>3.2<br>1,322.0<br>48.1 | 185.44<br>27.50<br>91.7<br>1.07<br>91.55<br>168.99 | 552.9<br>574.0<br>211.5<br>14.9<br>73.1<br>2,237.3 | 11.5<br>120<br>124<br>223<br>176<br>128<br>98 |
| LOTER YELL CWSTONE RIVER (MYCHING)  | April-June  | April-September                                    | 10 yr.   | · %AVE.                                       |
| Little Popo Agie at Hudson North Fork Popo Agie near Lander Wind River at Riverton Shoshone River below Buffalo Bill Shoshone River near Byron  | 84.44<br>267.5<br>1189.9<br>320.0                 | 106.9<br>124.0<br>528.7<br>916.6                   |  | 187   |
| Middle Fork Powder near Kaycee  | 8,977   | 56.9   |  | 7.1   |
| Tongue River near Dayton<br>Tongue River at Aome  | 295.5   | 153.<br>750.00                                     |  | 123   |
| Goose Creel near Sheridan   |   | 79.5   |  | 110   |



APRIL 1, 1952

COLUMBIA RIVER BASIN IN MONTANA
PRELIMINARY ESTIMATES OF SEASONAL RUNOFF
(1000's acre feet)

| NAME OF STREAM AND STATION  | Season<br>April-July   | 10 yr. % Avg.                          | Season<br>April-Sept.  | 10 yr. % Avg.                   |
|---|--|--|--|---------------------------------|
| North Fork Flathead near Belton<br>Middle Fork Flathead near Belton<br>South Fork Flathead near Columbia Falls<br>Flathead River At Columbia Falls<br>Flathead River at Polson (full natural) | 1,679.00<br>2,039.70<br>2,630.00<br>6,499.90<br>7,118.00       | 112<br>136<br>129<br>129<br>149        | 1,827,00<br>2,155,70<br>2,751,60<br>7,104,00                     | 108<br>134<br>136<br>130<br>120 |
| Clark Fork above Bonner Black Foot at Bonner Clark Fork above Missoula Bitterroot River at Darby Clarks Fork below Missoula Clarks Fork at St. Regis  | 805,00<br>996,00<br>1,801,00<br>683,00<br>3,148,00<br>4,228,00 | 146<br>141<br>178<br>146<br>116<br>115 | 972.00<br>1,074.00<br>2,046.00<br>721.40<br>3,424.00<br>4,568.00 | 135<br>137<br>134<br>142<br>112 |
| Clarks Fork at Plains<br>Clark Fork at Herron   | 11,713,00  | 133                                    | 12,686,00<br>14,232,00   | 128<br>139                      |

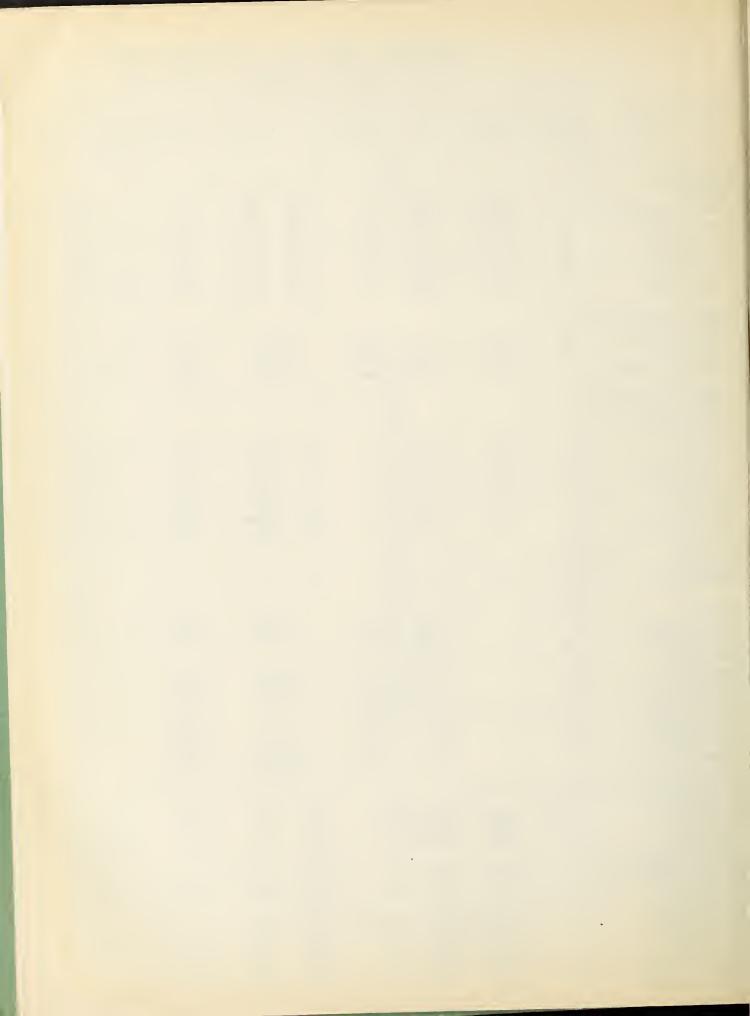


# INDEX TO MONTANA & NORTHERN WYOMING SNOW COURSES

| IND  | ŁX                     | 10                    |                            |                   | IAI                  | ۱A                   | & NC                          | DRIHE           | ERN WYC  | )MI.                            | NG                                   | SN                 | 0                  | / (                 |                              | RSES                          |               |
|--|------------------------|-----------------------|----------------------------|-------------------|----------------------|----------------------|-------------------------------|-----------------|--|---------------------------------|--------------------------------------|--------------------|--------------------|---------------------|------------------------------|-------------------------------|---------------|
| Drainage Basin<br>and Course Name                | Montana                | ∃lev.                 | Sec.<br>Lat.               | Twp.              | Range<br>Long,       | Record<br>Began      | Measuring<br>Dates            | Neasured<br>By: | Prainage Basin<br>and Course Name                    | Montan<br>Number                |                                      | Sec.<br>Lat.       | cation             | Range               | Recer                        | i Measuring                   | g Measured    |
| JEFFERSC" FLYER                                  |                        | OUKI                  | RIVER                      |                   | RAINA                |                      | Daves                         |                 |  | SSOUR                           |                                      |                    | <u>⊅œ.</u><br>RAIN | Long.               | CON                          |                               | By: b         |
| (ROOK-BEAVIPHEAD)                                |                        |                       |                            |                   |                      |                      |                               |                 | SIC HORN RIVER Wy                                    |                                 |                                      |                    |                    |                     |                              |                               |               |
| Lakeview Ridge<br>Lakeview Canyon                | 1153<br>1154           | 7400<br>6930          | 27<br>26                   | 14S<br>14S        | 27/<br>27/           | 1948                 | 3,4,5                         | 9               | Seavere Mill   | 9F8                             | 8900                                 | 6                  | 43N                | 102%                | 194B                         | 2,3,4,5                       | 12            |
| Limekiln<br>White Pine Ridge                     | 1232                   | 6950<br>8850          | 5<br>18                    | 15S<br>14S        | 9W<br>9W             | 1948<br>1948<br>1948 | 3,4,5<br>3,4<br>3,4           | 9<br>1<br>1     | Owl Creek<br>Tensleep R.S.<br>Timber Creek           | 8F1.<br>7E3<br>9E2              | 8700<br>8300<br>8800                 | 36<br>30<br>25     | 43N<br>49N<br>47N  | 101W<br>86W         | 1948                         | 2,3,4,5<br>4,5                | 12            |
| (HOPSE PRAIRIE)                                  |                        |                       |                            |                   |                      |                      | 2,4                           | _               | Ranger Creek<br>Wood River                           | 7EL<br>9F7                      | 8800                                 | 32<br>28           | 53N<br>46N         | 103W<br>88W<br>103W | 1948<br>1935<br>1939         | 4,5<br>4,5<br>2,3,4,5         | 12<br>1<br>12 |
| Bloody Dick<br>Gold Stone                        | 13016<br>13D9          | 7600<br>8100          | 12<br>11                   | 8S<br>8S          | 16W<br>16W           | 1948                 | 3,4                           | 1               | (SHOSHONE RIVER) W                                   |                                 |                                      |                    |                    | 200                 | -//                          | -121412                       |               |
| Lemhi Pass<br>Terrell Creek                      | 1381<br>13D12          | 7480<br>6650          | 9                          | 10S<br>93         | 15W<br>15W           | 1948<br>1948         | 3,4<br>3,4<br>3,4             | 1               | East Entrance<br>Sylvan Pass                         | 1056<br>1055                    | 7000<br>7100                         | 17<br>12           | 52N<br>52N         | 109W                | 1948<br>1936                 | 1,2,3,4,5                     | 5             |
| Trail Greek<br>Selway Junction                   | 1352                   | 7090<br>68 <b>0</b> 0 | 15<br>27                   | 10S<br>8S         | 15W<br>15W           | 1948<br>1948         | 3,4                           | 1               | TONGUE RIVER Wyom                                    |                                 | 1200                                 | -                  | 7211               | LION                | 1730                         | 1,2,0,4,0                     | ,             |
| (PIG HOLE)                                       |                        |                       |                            |                   |                      |                      |                               |                 | Big Goose<br>Burgess Ranger Sta                      | 7E2<br>7E4                      | 7700<br>7900                         | 4                  | 53N<br>56N         | 86W<br>89W          | 1935<br>1950                 | 2,3,4,5                       | 1<br>12       |
| Big Hole Pass<br>Big Hole Pass (Below            | 1303<br>w)13D4<br>13D5 | 7440<br>6900<br>6700  | 2B<br>24                   | 3S<br>3S          | 18W<br>18W           | 1948<br>1948         | 3,4                           | 1               | Dome Lake<br>Lodgepole                               | 7E5<br>9EL                      | 8800<br>82.0                         | 36<br>11<br>32     | 53N<br>56N         | 87W<br>106W         | 1950<br>1940                 | 2,3,4,5<br>2,3,4,5<br>4,5     | 12            |
| Fast Boundary<br>Gibbons Pass<br>Jahnke Creed    | 1302<br>1308           | 7100<br>7340          | 22<br>4<br>25              | 3S<br>2S<br>7S    | 17W<br>19W<br>16W    | 1948<br>1934<br>1948 | 3,4<br>2,3,4,5<br>3,4         | 1,2             | POWDER HIVER   |                                 |                                      |                    |                    |                     |                              |                               |               |
| Miner Forks<br>Miner Lake                        | 13D6<br>13D7           | 7300<br>6720          | 24                         | 6S<br>6S          | 17W<br>16W           | 1948<br>1945         | 3,4                           | 1               | Rorth Powder<br>Muddy Pass                           | 7E8<br>7E7                      | 8500<br>9 <b>70</b> 0                | 5<br>11            | 47N<br>48N         | 85W<br>85W          | 1951<br>1950                 | 2,3,4,5                       | 12<br>1       |
| (VISE RIVER)                                     |                        |                       |                            |                   |                      |                      |                               |                 | Soldier Park<br>Sour Dough<br>Red Fork               | 756<br>651<br>751               | 8700<br>8500<br>7000                 | 36<br>17<br>18     | 51N<br>49N<br>43N  | 85W<br>84W<br>85W   | 1950<br>1936<br>1936         | 2,3,4,5<br>2,3,4,5<br>2,3,4,5 | 12<br>1<br>12 |
| Anderson Mdw.<br>Flk Norn                        | 13B14<br>13015         | 7000<br>8450          | 1B<br>15                   | 3S<br>4S          | 12W<br>12W           | 1948<br>1934         | 3,4<br>3,4,5                  | 1 2             | ned 1018   | 7                               | 1000                                 | 20                 | ٠١/ر-              | 0,11                | 1,,,,                        | ~,,,,,,                       | 24.           |
| Wise River (RUBY RIVER)                          | 13D13                  | 6300                  | 15                         | 28                | 12W                  | 1948                 | 3,4                           | 1               |  |                                 |                                      |                    |                    |                     |                              |                               |               |
| Cottonwood                                       | 112                    | 5900                  | 24                         | 108               | 3W                   | 1948                 | 3,4                           | 1               |  |                                 |                                      |                    |                    |                     |                              |                               |               |
| Cottonwood (Upper)<br>Flashlight<br>Tobacco Root | 11E1<br>1203<br>1202   | 8400<br>6950<br>6900  | 30<br>22<br>13             | 10S<br>8S<br>4S   | 2W<br>7W<br>3W       | 1948<br>1945<br>194B | 3,4,5                         | 1 1 1           |  |                                 | COLUM                                | ИВIA               | RIVI               | ER B                | ASIN                         |                               |               |
| Vigilante  | 1101                   | 6125                  | 28                         | 95                | 3W                   | 1948                 | 3,4                           | i               | KOOTENAI RIVER                                       | 2.500                           | 1000                                 | ,                  | 0.511              |                     | 2000                         |                               |               |
| MADISON RIVER                                    | 11E5                   | 6550                  | 22                         | 115               | 3.E                  | 1934                 | 1 2 2 1 5                     | 2               | Baree Mountain<br>Blue Bird Basin<br>Red Mountain    | 1581<br>14A1<br>15A1            | 6000<br>6800<br>6000                 | 1<br>24<br>4       | 25N<br>37N<br>36N  | 31W<br>26W<br>29W   | 1937<br>1937<br>1937         | 4,5<br>4,5<br>3,4,5           | 1 1           |
| West Yellowstone<br>Norris Basin                 | 1167                   | 6700<br>7500          | 34<br>44 <sup>P</sup> -441 | 138               | 5E<br>1100-421       | 1934<br>1935         | 1,2,3,4,5<br>1,2,3,4,5<br>3,4 | 2 2 5,6         | PLATHEAO RIVER                                       |                                 |                                      | 7                  | ,                  | -,                  | =//                          | 2,412                         | -             |
| CALLATIN RIVER                                   |                        |                       |                            |                   |                      |                      |                               | 3               | Baein Creek<br>Sig Creek                             | 13B14<br>13B3                   | 5000<br>6750                         | 11                 | 19N<br>22N         | 12W<br>18W          | 1951<br>1941                 | 2,3,4,5                       | 1 4           |
| Devil's Slide<br>Nood Meadow                     | 1004<br>10D3           | 8100<br>6600          | 14<br>22                   | 5S<br>4S          | 63<br>6E             | 1935<br>1934         | 3,4,5                         | 2,6             | Brush Creek<br>Cattle Queen                          | 14A4<br>13A1                    | 5000<br>4700                         | 13                 | 30N<br>35N         | 26W<br>17W          | 1937<br>1939                 | 3,4,5                         | î<br>5        |
| Mystic Lake<br>New World                         | 1002<br>10D1           | 6600<br>6700          | 30<br>24                   | 3S<br>3S          | 75<br>65             | 1935<br>1939         | 3,4,5<br>2,3,4<br>2,3,4,5     | 6,7             | Desert Mouhtain<br>NellRoaring Divide<br>Hulbrook    | 13A2<br>14A3<br>13B13           | 5600<br>5770<br>4530                 | 24<br>35<br>18     | 31N<br>32N<br>21N  | 19W<br>22W<br>13W   | 1937<br>1942<br>1951         | 1,2,3,4,5                     | 1             |
| 21-Mile MISSOURI RIVER MAIN                      | 11E6<br>STEM           | 71.50                 | 1                          | 115               | 5€                   | 1934                 | 1,2,3,4,5                     | 2               | Kiehenehn<br>Limestone Pase                          | 1442                            | 4300<br>2000                         | 7 28               | 37N<br>18N         | 21W<br>12W          | 1946                         | 2,3,4,5<br>4,5<br>3,4,5       | 5             |
| Chessman Reservoir                               | 1205                   | 6200                  | 2                          | 8N                | 5W                   | 1936                 | 1,2,3,4,5                     | 2               | Logan Creek<br>Marias Pess                           | 14A5<br>13A5                    | 4300<br>5250                         | 34<br>340          | 30N<br>30N         | 24W<br>14W          | 1937<br>1934                 | 3,4,5                         | 1 2           |
| Crystal Lake<br>Grasshopper<br>Kings Nill        | 901<br>1002<br>1001    | 6100<br>7000<br>7950  | 24<br>19<br>35             | 12N<br>9N<br>13N  | 17E<br>8E<br>7E      | 1941<br>1938<br>1937 | 3,4                           | 1<br>1<br>2     | Snow Lab. #16<br>Spotted Sear Mt.<br>Strawberry Lake | 13A9<br>13B2<br>13B10           | 5200<br>7000<br>6500                 | 15<br>23<br>11     | 29N<br>25N<br>28N  | 14W<br>15W<br>19W   | 1946<br>1948<br>1948         | 1,2,3,4,5<br>3,4,5<br>3,4,5   | 1             |
| Pienic Crounds<br>Pipestone Pase                 | 12C6<br>12D1           | 6500<br>7200          | 22<br>11                   | 5N<br>1N          | 6W<br>7W             | 1940                 | 3,4,5<br>2,3,4<br>2,3,4,5     | 3               | Trinkus Lake<br>Tront Lake #2                        | 13B1<br>13H12                   | 6500<br>3600                         | 9                  | 25N<br>28N         | 17W<br>17W          | 1948<br>1948                 | 3,4,5                         | 1             |
| Stemple Pass Ten Mile Creek, Lowe                |                        | 6900<br>6250<br>6800  | 16<br>13                   | 13N<br>8N<br>8N   | 7W<br>6W             | 1934                 | 3,4,5                         | 2               | Upper Nolland Lake<br>Twin Creeks<br>Quintenkon      | 13B5<br>13B11<br>13B13          | 7000<br>3580<br>3800                 | 28<br>14<br>11     | 20N<br>26N<br>26N  | 16W<br>16W<br>17W   | 1948<br>1951<br>1951         | 3,4,5<br>2,3,4,5<br>2,3,4,5   | 1<br>1<br>1   |
| Ten Mile Creek, Middl<br>Ten Mile Creek, Upper   | 1204                   | 8000                  | 13<br>19                   | 8N                | 6₩<br>5₩             | 1934<br>1935         | 1,2,3,4,5                     | 2               | UPPER CLARK FORK                                     | 2,02                            | ,,,,,,                               |                    |                    |                     | -//-                         | ~,>,,,,                       | -             |
| (TETON PIVER)                                    | 2012                   | (000                  |                            |                   |                      |                      |                               |                 | El Dorado Mine<br>Gold Creek Lake                    | 1309<br>1308                    | 7800<br>7200                         | 23<br>14           | 8N<br>8N           | 12W<br>12W          | 1946<br>1946                 | 4                             | 11            |
| Freight Creek<br>Waldron Creek<br>West Fork      | 12A1<br>12B2<br>12B1   | 6000<br>5600<br>6000  | 13<br>16<br>6              | 26N<br>25N<br>25N | 10W<br>9W<br>9W      | 1948<br>1948<br>1948 | 3,4<br>3,4<br>3,4             | 1 1 1           | Intergaard<br>North Fork Jocko                       | 1304<br>1387                    | 6 <u>6</u> 50<br>6330                | 6                  | 5N<br>17N          | 13W<br>17W          | 1939<br>1941                 | 2,3,4                         | 3             |
| (SUN RIVER)                                      |                        |                       |                            | ~ >               | /11                  | 1/40                 | J,4 .                         | •               | Picnic Grounds<br>Pipeetone Pass                     | 1206<br>1201                    | 6500<br>7200                         | 22<br>11           | 5N<br>1N<br>18N    | 6W<br>7W<br>1.6W    | 1940                         | 2,3,4,5                       | 3             |
| Sench Mark<br>Cabin Creek                        | 1288<br>1286           | 5500<br>5400          | 9<br>33                    | 20N<br>23N        | 10W<br>10W           | 1948                 | 3,4                           | 1               | Rainy Lake<br>Slide Rock Nountain<br>Southern Crose  | 1386<br>n 1302<br>1305          | 4300<br>7100<br>6500                 | 11<br>26<br>9      | 10N<br>5N          | 16W                 | 1947<br>193 <b>7</b><br>1939 | 3,4,5                         | 1<br>1<br>3   |
| 5-Bull<br>Gates Park                             | 1289<br>1285           | 5600<br>5300          | 36<br>31                   | 20N<br>24N        | 10W<br>10W           | 1948                 | 3,4<br>3,4<br>3,4             | 1               | Stemple Pass<br>Storm Lake No. 2                     | 1301                            | 6900<br>7780                         | 16<br>19           | 13N<br>4N          | 7W<br>13W           | 1934<br>1939                 | 3,4,5                         | 2             |
| Goat Mountain Ny Lake Wrong Creek Ridge          | 1287<br>1389<br>1283   | 7000<br>7300<br>6800  | 20<br>21<br>17             | 22N<br>23N<br>25N | 10W<br>12W<br>10W    | 1934<br>1950<br>1949 | 3,4                           | 2               | Stuart Mill<br>Stuart Mountain #1<br>Coyote Nill     | 1306<br>1301<br>13B10           | 6500<br>7400<br>4200                 | 19<br>6<br>12      | 5N<br>14N<br>18N   | 13W<br>18W<br>16W   | 1939<br>1936<br>1951         | 2,3,4<br>4<br>3,4,5           | 3<br>1<br>1   |
| Wrong Creek                                      | 12B4                   | 5700                  | 32                         | 25N               | 10W                  | 1949                 | 3,4                           | i               | PEND OREILLE RIVER                                   |                                 |                                      |                    |                    |                     |                              |                               |               |
| (MARIAS RIVER)                                   | 13A5                   | 5250                  | 21                         | 3 ON              | 1112                 | 2026                 | 2 2 2 1 5                     | 2               | Barce Mountain<br>Freezeout Submit                   |                                 | 6000<br>6800                         | 1<br>21            | 25R<br>15N         | 31W<br>27W          | 1937<br>1951                 | 4.5                           | 1             |
| Snow Lab. #16                                    | 1349                   | 5200                  | 34<br>15                   | 29N               | 14W<br>14W           | 1936<br>1947         | 1,2,3,4,5                     | 2               | Seedee Creek BITTERROOT RIVER                        | 1301                            | 6200                                 | 9±16               | 1LN                | 27 <b>m</b>         | 1937                         | 4                             | 1             |
| (MILK RIVER)                                     | 941                    | 5200                  | 7.5                        | 200               | 1/2                  | 2012                 | 2.1                           | ,               | East Fork Renger Str                                 | .1301                           | 5400                                 | 16                 | 2n                 | 17W                 | 1937                         | 4                             | 1             |
| Rocky Boy  (MUSSFISHELL RIVE)                    | YAI                    | 5200                  | 15                         | 28N               | 16E                  | 1941                 | 3,4                           | 7               | Gibbons Pass<br>Mud Creek Pesture                    | 1302<br>1401<br>1402            | 7100<br>1500<br>5580                 | 14<br>24<br>19420  | 2S<br>11N<br>1S    | 19單<br>2以<br>23單    | 1934<br>1937<br>1937         | 2,3,4,5                       | 1 1 1         |
| Crasshopper                                      | 1003                   | 7000                  | 19                         | 9N                | 8E                   | 1938                 | 3,4                           | 1               | Nezperce Camp<br>Nezperce Page<br>Skulkahe Summit    | 1401<br>1303                    | 6575<br>7259                         | 32<br>30           | 28W<br>6W          | 16E<br>17W          | 1937<br>1937                 | 4                             | 1 1           |
| (UPPER YELLOWSTONE)                              |                        |                       |                            |                   |                      |                      |                               |                 |  |                                 |                                      |                    |                    |                     |                              |                               |               |
| Camp Senia<br>Canyon                             | 901<br>10E3            | 7890<br>7750          | 2                          |                   | 18E<br>1100-301      | 1037<br>1938         | 1,2,3,4,5                     | 1<br>12         |  |                                 |                                      |                    |                    |                     |                              |                               |               |
| Cocke City<br>Crevice Mt.<br>Independence        | 1007<br>1005<br>1006   | 7400<br>8400<br>8000  | 25<br>29<br>22             | 9S<br>99<br>7S    | 148<br>9E<br>12E     | 1937<br>1935<br>1941 | 1,2,3,4,5<br>3,4<br>3,4       | 5<br>1<br>12    |  |                                 |                                      |                    |                    |                     |                              |                               |               |
| Lake Camp<br>Lupine Creek                        | 10E4<br>10E1           | 7850<br>7300          | 44°-341<br>44°-541         | 1                 | 100-24               | 1937                 | 1,2,3,4,5                     | 12              |  | SASKA                           | ATCHEV                               | WAN                | RIVE               | R B                 | ASIN                         |                               |               |
| (SHIGLDS RIVER)                                  |                        |                       |                            |                   |                      |                      |                               |                 | ST. MARY RIVER                                       |                                 |                                      |                    |                    |                     |                              |                               |               |
| Porcupine  | 1003                   | 6500                  | 1Q                         | 421               | 10E                  | 1938                 | 3,4                           | 1               | Icoberg Lake<br>Piegan Pase ∮h                       | 13A3<br>13A4                    | 5000 L                               | 80-50°             | 13                 | 130-10:             | 1922<br>1922                 | 5<br>5                        | 2,8<br>2,8    |
| LOWER YTLOWSTONE (Wind River) Wyomin,            | ø                      |                       |                            |                   |                      |                      |                               |                 | Piegan Pase #6 Hount Allen #7                        | 13A6<br>13A7                    | 7000 L                               | 80-14,<br>80-14,   | 11                 | 130-121             | 1922                         | 5                             | 2,8           |
| Brooks Lake #3<br>Burroughe Creek                | 10P2<br>9F6            | 9200<br>8800          | 23<br>15                   | 44N<br>43N        | 110W<br>107W         | 1939<br>1948         | 2,3,4,5                       | 12<br>12        | Ptarmigan #6   | 13A8                            | 5800 L                               | u-=501             | 11                 | 130-121             | 1922                         | 5                             | 2,8           |
| Dinwoodie<br>Dry Creek<br>DuNoir                 | 9F10<br>9F9<br>9F2     | 9500<br>8750          | 9<br>34<br>27              | 38N               | 105W<br>105W<br>108W | 1948<br>1948         | 2,3,4,5                       | 12<br>12        |  |                                 |                                      |                    | ,                  |                     |                              |                               |               |
| Geyser Creek<br>Nobbe Perk                       | 9P3<br>9G2             | 8500<br>10000         | 12                         | 41N<br>2S         | 108W<br>3W           | 1940<br>1948<br>1948 | 2,3,4,5<br>2,3,4,5<br>2,3,4,5 | 12<br>12<br>12  | e. Numerele 1,2,3,                                   |                                 |                                      |                    |                    |                     |                              |                               | and May 1     |
| Little Warm Mosquito Park R.S. Sheridan R.S.     | 9F4<br>9G3<br>9F1      | 9500<br>9500<br>7500  | 24<br>23                   | 25                | 108W<br>3W           | 1948                 | 2,3,4,5                       | 12<br>12        | 1. 0.  | S. Foree                        | t Service                            |                    |                    |                     |                              |                               |               |
| St. Lawrence R.S.<br>T-Cross Ranch               | 9711<br>9F5            | 9000                  | 26<br>1                    | 1N<br>43N         | 109W<br>4W<br>107W   | 1939<br>1940<br>1940 | 2,3,4,5<br>2,3,4,5<br>2,3,4,5 | 12<br>12<br>12  | 3. Mo  | ntane Po                        | gieel Sur<br>wer Compe<br>in Berviee |                    | U.S. Ex            | gineer              | cerpe                        |                               |               |
| Tront Creek<br>Togwotee Pase                     | 9C1<br>10F1            | 8400<br>9600          | 5<br>29                    | 2S                | 110M                 | 1948                 | 2,3,4,5                       | 12<br>10        | 5. Ne<br>6. Me                                       | tionel P                        | erk Servic                           | e<br>Station       |                    |                     |                              |                               |               |
| Elue Ridge<br>Grannier Meadews                   | fyoming<br>862<br>864  | 9500<br>9000          | 23<br>19                   | 30N               | 101W                 |                      | 2,3,4,5                       | 12              | 8. Do  | ty of Be<br>minion W<br>S. Fich | semen<br>Seter and I<br>and Wildl:   | Power Bu           | reeu               |                     |                              |                               |               |
| Larsen Creek<br>Sawmill Clade                    | 9G4<br>8G1             | 9000<br>8500          | . 12                       | 30N<br>31N        | 101W                 | 1948                 | 2,3,4,5                       | 12<br>12        | 10. U.<br>11. De                                     | S. Buree<br>erledge             | u of Rock<br>Citisene                | metion<br>Committe |                    | 100 4               |                              | Letter op                     |               |
| South Page                                       | 8G3                    | 9000                  | 13                         | 30N               | 101M                 | 1939                 | 2,3,4,5                       | 12              | 12. Be   | 11 Cense                        | rvetien S                            | rvie               |                    | LHROOLE             | DOM: 01.77000                | - 5.                          | R-11,484-A    |

# SUPPLEMENTAL INDEX LIST OF SNOW SURVEY COURSES IN ADJACENT BASINS, USED IN THIS REPORT AND SHOWN ON THE INDEX MAP

| DRAINAGE AND<br>SNOW COURSE   | Adj.<br>State<br>No. | Montana<br>Number | Elev.<br>Feet | Section<br>Lat.   | Twp Range<br>Long.  | Record<br>Began | Measure-<br>ment<br>Dates | Meas=<br>ured<br>By |
|-------------------------------|----------------------|-------------------|---------------|---|---------------------|-----------------|---------------------------|---------------------|
| JEFFERSON                     | Idaho                |                   |               |   |                     |                 |                           |                     |
| Kilgore                       | 10                   | 11E12             | 6200          | 6   | 12N 39E             | 1937            | 1,2,3,4,5                 | pd.obs              |
| Blue Ridge Mine               |                      | 11E11             | 6700          | 27  | 13N 38E             | 1938            | 4                         | pd.obs              |
| Camp Creek                    | 5                    | 12E3              | 6800          | 21  | 13N 36E             | 1936            | 1,2,3,4                   | 1                   |
| Moose Creek                   | 8                    | 13D16             | 6200          | 22=27   | 27N 21E             | 1937            | 3,4,5                     | 1                   |
| Big Springs                   | 3                    | 11E9              | 6500          | 34  | 19N ЦДЕ             | 1936            | 1,2,3,4,5                 | 10                  |
| Island Park                   | 9                    | 11E10             | 3600          | 28  | 13N 43E             | 1936            | 1,2,3,4,5                 | 10                  |
| Valley View                   | 17                   | 11E8              | 6500          | 7   | 15N 44E             | 1936            | 1,2,3,4                   | 10                  |
| UPPER YELLOWSTONE             | Wyo.                 |                   |               |   |                     |                 |                           |                     |
| Lewis Lake Div.               | 9                    | 10E9              | 7900          | 44-13   | 110-40              | 1919            | 1,2,3,4                   | 10                  |
| Aster Creek                   | 2                    | 10E8              | 7700          | 44-17   | 110-37              | 1919            | 1,2,3,4                   | 10                  |
| Tom Thumb Summit              |                      | 10E7              | 7900          | 44-22   | 110-35              | 1949            | 3,4                       | 10                  |
| LOWER YELLOWSTONE             | Wyo.                 |                   |               |   |                     |                 |                           |                     |
| (Wind River)                  | 20                   | 2073              | 0/00          | 20  | 1 1 27 3 3 000      | 207/            | 0715                      | 30                  |
| Togwotee Pass                 | 12                   | 1.0F1             | 9600          | 29  | LLIN 110W           | 1936            | 2,3,4,5                   | 10                  |
| Kendall<br>Loomis Park        | 25<br>26             | 9F12<br>10F4      | 7900<br>8500  | 23  | 38N 110W 37N 111W   | 1936            | 3,4,5                     | 1                   |
| Yellow Jacket                 | 14                   | 10F4<br>10F5      | 6775          | 14  | 37N 111W   42N 112W | 1942            | 3,4,5                     | 1                   |
| Black Rock                    | 2                    | 10F3              | 8600          | 33<br>4   | 42N 111W            | 1936            | 2,4,5                     | 10                  |
| Dutch Joe                     | 23                   | 966               | 8700          | 32  | 31N 10LW            | 1936            | 4,5                       | 10                  |
| Mulligan Park                 | 24                   | 900<br>965        | 8900          | 17  | 35N 108W            | 1936            | 3,4,5                     | i                   |
|                               |                      | 7-7               |               | 1   | 772. 200            | 27,70           | 79797                     |                     |
| KOOTENAI                      | Idaho                | - / >-            | 1.000         |   |                     |                 | , -                       |                     |
| Smith Creek                   | 13                   | 16A1              | 4800          | 29  | 64N 3W              | 1937            | 4.5                       | 1                   |
|                               | Canada               |                   | 7500          | 10.71   | 335 03              | 3070            |                           |                     |
| Fernie Ridge                  | 10                   |                   | 3500          | 49=31   | 115=01              | 1939            |                           |                     |
| Fernie Ridge                  | 68                   |                   | 5600          | 49-31   | 115-00              | 1952            |                           |                     |
| New Fernie<br>Gray Creek      | 10A<br>34            |                   | 4100<br>5100  | 70-77   | 116-41              | 1948            |                           |                     |
| Kimberly                      | 20                   |                   | 3800          | 39-37<br>49-41  | 115=41              | 1948            |                           |                     |
| Marble Canyon                 | 32                   |                   | 5000          | 51=12   | 115=59              | 1945            |                           |                     |
| Nelson Creek                  | 19                   |                   | 3050          | 144=25  | 110=09              | 1947            |                           |                     |
| Sinclair Pass                 | 19<br>8 <b>A</b>     |                   | 4500          | 50=40   | 115-58              | 1950            |                           |                     |
| Sullivan Mine                 | 20A                  |                   | 5100          | 49=43   | 116=01              | 1947            |                           |                     |
| Upper Elk River               | 41                   |                   | 4400          | 50=01   | 114-56              | 1947            |                           |                     |
|                               |                      |                   | Cycepo .      | 70 02   |                     | 2741            |                           |                     |
| UPPER CLARK FORK              | Idaho                |                   | 1             |   | 5 (117              |                 | - 1 -                     |                     |
| Coyote Hill                   | 13B11                | 25770             | 4200          | 12  | 18N 16W             | 1952            | 3,4,5                     | 1                   |
| 49 Meadows                    | 1                    | 15B10             | 5000          | 6   | 43N 5E              | 1937            | 1,2,3,4,5                 | 1                   |
| Lookout                       | 10                   | 15B2              | 5250          | 4   | 47N 6E              | 1921            | 1,2,3,4,5                 | 1                   |
| PEND OREILLE                  | Idaho                | 7/41              | F330          | -   | el ar or            | 2077            | 1, 5                      | 1                   |
| Mosquito Ridge<br>Freezout #2 | 9                    | 16A4<br>15B10     | 5110<br>6800  | 5<br>21   | 54n 2E<br>15n 27w   | 1937            | 4,5                       | 1                   |
| BITTERROOT                    | Idaho                | 15010             | 8000          | <t< td=""><td>1214 5/11</td><td>エフンふ</td><td>3.4</td><td>dı</td></t<> | 1214 5/11           | エフンふ            | 3.4                       | dı                  |
| Moose Creek                   | 1dano                | 13D16             | 6200          | 22=27   | 27N 21N             | 1937            | 3,4,5                     | 1                   |
| Kit Carson                    | 3                    | 1403              | 4700          | 4   | 27N 21N 27N 16E     | 1937            | 70407                     | 1                   |
| Savage Pass                   | 7                    | 1405<br>14C4      | 6000          | 18  | 36N 15E             | 1937            | 4                         | 1                   |
| Powell Pasture                | 6                    | 15C3              | 3700          | 27  | 27N 14E             | 1937            | 1 1                       | 1                   |
| Packers Mdw.                  | 5                    | 1705              | 5700          | 15  | 38N 15E             | 1937            | 2,3,4,5                   | 1                   |
|                               | 1                    |                   |               | 1-7   |                     |                 |                           |                     |



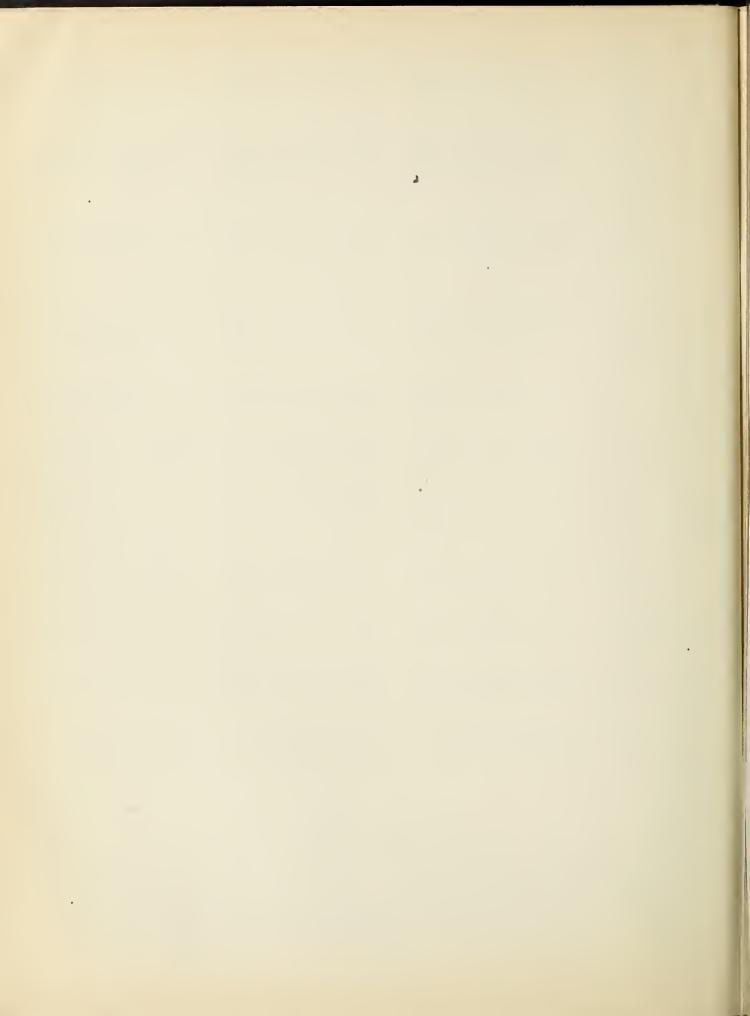
Reservoir Volumes in 10,000's a.f.

| RESERVOIR   | Location on or diversion from                            | Usable Capacity | Contents<br>This Yr. | Contents<br>Last Yr. | 10-yr.<br>Average |
|---|--|-----------------|----------------------|----------------------|-------------------|
| RESERVOIR   | diversion from   | Capacity        | Apr. 1               | Apr. 1               | Apr. 1            |
|   |  |                 | 1952                 | 1951                 | 1941 to           |
|   |  |                 | 17/1                 | ±//-                 | 1950              |
|   |  |                 |                      |                      |                   |
| Lima Reservoir  | Beaverhead   | 84.00           | 35.04                | ~~~                  | 37.18             |
| Ruby Reservoir  | Ruby River   | 38,85           |                      | 2000                 | 26.70             |
| Willow Creek Reser.   | Willow Creek   | 17,76           |                      |                      | 21.17             |
| Hebgen Lake   | Madison River  | 345.00          | 225.20               | 232.40               | 230.00            |
| Ennis Lake  | Madison River  | 41.00           | 38.73                | 36.02                | 34.15             |
| Middle Creek Reser.   | Hyalite Creek  | 0-              |                      |                      | 50 O 0            |
| Lake Sewall   | Missouri River   | 37.80           | 20.57                |                      | 31.21             |
| Hauser Lake (inc. Lake Hel  |  | 62.50           | 38.01                |                      | 42.72             |
| Lake Helena   | Missouri River   | 10.45           | 3.00                 | ~1 1 ~               | 52.90             |
| Holter Lake   | Missouri River   | 81.92           | 37.56                | 74.43                | 50.16             |
| Gibson Reservoir  | N.Fk. Sun River  | 105.00          | 66.92                | 80.61                | 64.28             |
| Willow Creek Res.<br>Pishkun Reservoir  | N.Fk. Sun River  | 32,30           | 25.46                | 2.60                 | 12.98             |
|   | NoFk. Sun River<br>Teton River                           | 32,00           | 23.04                | 18.91                | 17.34             |
| Bynum Reservoir Lower Two Medicine Lake   | Two Medicine River                                       | 14.00           | 0.0                  | 0,0                  | 0.0               |
| Four Horns Lake   | Badger Creek   | 20.00           | 8.58                 | 0.0                  | 7.84              |
| Swift Reservoir   | Birch Creek  | 30,00           | 0.00                 | 30.05                | 23.05             |
| Lake Francis  | Dupuyer & Birch Cr.                                      | 112.00          |                      | 96.54                | 82.50             |
| Ackley Lake   | Judith River   | 5.82            |                      | 4.06                 | 4.36              |
| Durand Reservoir  | N.Fk. Musselshell  | 7.01            |                      | 4.00                 | 5.42              |
| Martinsdale Reservoir   | S.Fk. Musselshell  | 23.10           |                      | 12.08                | 10.28             |
| Deadman Basin Reservoir   | Musselshell River  | 52.50           |                      | ====                 | 37.52             |
| Fort Peck Reservoir   | Missouri River   |                 | 12,390.00            | 12.960.00            | 9,814.30          |
| Fresno Reservoir  | Milk River   | 127.20          |                      | 99.88                | 63.00             |
| Nelson Reservoir  | Milk River   | 66.80           | 37.02                | 15.67                | 29.15             |
| Mystic Lake   | W. Rosebud Creek   | 20,80           | 4.63                 | 5.25                 | 5.73              |
| Cooney Reservoir  | Red Lodge Creek  | 27.50           |                      | 14.05                | 17.43             |
| Tongue River Reservoir  | Tongue River   | 73.90           |                      | 8.98                 | 19.06             |
| Sherburne Lake  | Swiftcurrent Cr.   | 66.10           | 19.42                | 8,98                 | 23.97             |
| YELLOWSTONE RIVER BASIN,  | MAY OM THY?  |                 |                      |                      |                   |
| CONTRACTOR OF THE PROPERTY OF | Shoshone River   | 456.60          | 202,29               | 269,1                | 342.15            |
| Boysen Reservoir  | Wind River   | 819.80          | 152.40               |                      | lst yr            |
|   | Wind River   | 30.10           | 13.55                |                      | 17.01             |
| Bull Lake Reservoir   | Wind River (Bull Creek)                                  | 155.00          | 61.20                |                      | 53.18             |
|   |  | =55,000         |                      | 1202                 | 77020             |
| COLUMBIA RIVER BASIN  |  |                 |                      |                      |                   |
| Georgetown Lake   | Flint Creek  | 31.00           | 20.91                | 19.92                | 22.11             |
| E.Fk. Rock Creek Rese   | E.Fk. Rock Creek   | 16.04           |                      | <b>⇔</b> ⇔∞          |                   |
| Nevada Creek Res.   | Nevada Creek   | 12.60           |                      |                      |                   |
| W.Fk. Bitterroot Res.   | W. Fk. Bitterroot Riv.                                   | 31.70           |                      | 1.00                 | 7.66              |
| Como Lake   | Rock Creek   | 34.80           | 13.60                |                      | 13.86             |
|   | So.Fk. Flathead Riv.                                     | 3,000,00        | 68.08                | 1 2                  | lst yr            |
| Flathead Lake   | Flathead River   | 1,791.00        | 572.30               |                      | 586.03            |
| Little Bitterroot   | Little Bitterroot*                                       | 36.10           | 36.12                | f                    | 12.50             |
|   | Dry Fork Creek*  | 6.70            | 4.81                 | 0                    | 2.73              |
|   | Flathead Irr. Project**                                  | 98.60           | 49.86                | ·                    | 38,68             |
| Lower Jocko Lake  | Jocko Creek  | 7.6             | .41                  |                      | 9000              |
|   | and I make the I as the distribute a control as a single |                 |                      |                      |                   |
| *Sum of two reservoirs o  |  |                 |                      |                      |                   |



# PRECIPITATION DATA FOR AFRIL 1, 1952 MONTANA

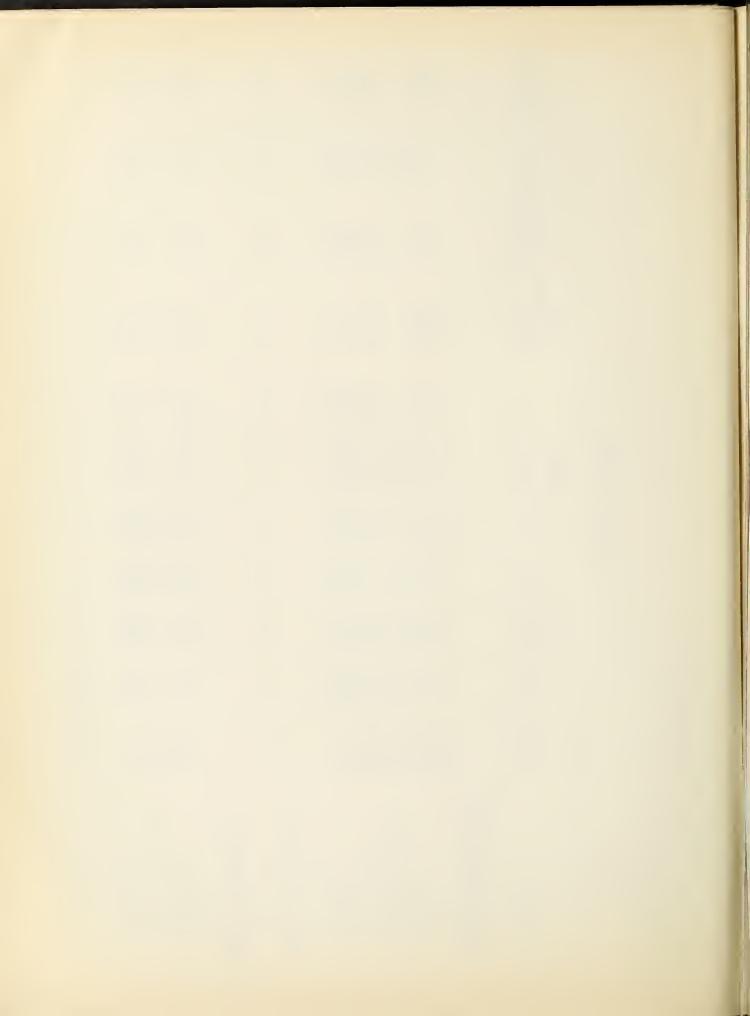
| Column   C    |                                |   |               | 1951       |   |      | 1952 |       | 1952      |          |                             |                |
|---|--------------------------------|---|---------------|------------|---|------|------|-------|-----------|----------|-----------------------------|----------------|
| ## ation Oct. Nov. Dec. Jan. Peb. Mar. Normal 1951-52 Normal Departum  ### partial property   5532 0.66 1.09 1.18 0.29 0.85 1.146 0.98 1.12 0.14 1.25 1.09 0.70 1.18 0.29 0.85 1.146 0.98 1.12 0.14 1.145 0.50 0.00 0.00 0.00 0.00 0.00 0.00 0.   | Station                        | Elev-   | Prec          | ipitati    | on  | -    |      | А     | ept, from | Accumul  | i .                         | i pitation     |
| Columb  |                                | ation   | Oct.          | Nove       | 96  | Jan. | Febe |       | Norma1    | 1951-52  | Norma 1                     | Departure      |
| \$\begin{array}{c} \text{S200} \text{.65} \te | OF DIVIDE                      | 3000  | 3.63          | 98         | 2,49  | 1,39 | 0.79 | 7     | o a       | <u>-</u> | 8,00                        | C C            |
| \$\begin{array}{c} \text{Sign} \text{ first } \text{ condition} \text{ condition}  | hillipsburg                    | 5280  | 3.6.          | 38         | 3, 3, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, | 92,  | 8,0  | 1.12  | \$0°14    | 77.5     | 10,                         | 40°0°          |
| s) 5213 6.20 3.20 4.65 4.55 2.15 2.55 -0.73 2.50 17.54 11.01 11.05 11.01 11.05 11.01 11.05 11.01 11.05 11.01 11.05 11.01 11.05 11.01 11.01 11.05 11.01  | amilton<br>est Glacier         | 5529<br>3154  | 1.92          | 2,25       | 1.41  | 2,51 | 1,00 | 1,13  | -0.53     | 16.35    | 15,11                       | 17°50          |
| 1,00  | ummit (Marias)                 | 5213  | 6.20          | 3,20       | 14.65   | 4.35 | 2,15 | 2,55  | -0.73     | 23.10    | 17.54                       | 5.56           |
| \$\begin{array}{c c c c c c c c c c c c c c c c c c c   | rout Creek                     | 4101  | 1.57          | 1.37       | 2.08  | 3,81 | 0.93 | 1,13  | -0.13     | 7.79     | 8.71                        | 07°24<br>04°24 |
| Airport) 3664 1.00 2.91 3.4 1.49 2.5 0.89 0.48 -0.65 6.26 5.98 2488 1.00 2.9 1.02 442 0.81 0.47 -0.04 3.97 3.67 3.67 4.18 3.893 1.00 2.5 1.02 442 0.81 0.47 -0.04 3.97 3.67 4.18 3.893 1.00 2.5   | hompson Falls<br>Average (8)   | 2435  | 3.29          | 2.16       | 2.79  | 1.63 | 1,17 | 1.24  | -1.49     | 9,77     | 11.57                       | -1.80<br>+1.49 |
| Airport) 2664   | RAL DIVISION abb               | 7200  | 2,91          | ন্         | 1.49  | 2° - | 0.89 | 87.0  | -0.63     | 6.26     | 5.98                        | +0<br>+0<br>-5 |
| rport)  | reat Falls (Airport)           |   | 1.72          | 7,<br>1,1  | 1,06  | がなっ  | 1,63 | 0.76  | -0.04     | 5.92     | 7.63<br>4.83                | 12.69          |
| 1485   3.74   | Glena (Airport)                | 3893  | .79           | .31        | 1,08  | 25,  | 0.56 | 1,27  | 0.18      | 4.16     | 3.27                        | 5°89           |
| 6658 1.74 .57 1.50 .19 1.06 0.99 +0.17 5.78 4.57 1.27 (666) 2.66 1.66 2.83 2.34 1.75 2.05 -0.17 16.29 12.72 (666) 2.66 1.66 2.83 2.34 1.75 2.05 -0.17 16.29 12.72 (666) 2.66 1.66 1.66 1.66 1.66 1.22 1.30 1.36 -0.69 9.87 8.73 (666) 2.69 (666) 2.65 1.65 1.65 1.65 1.65 1.00 1.36 1.36 1.36 1.36 1.36 1.36 1.36 1.36  | ston                           | 1485  | 3.74          | 847        | 7.05  | 1.08 | 1,00 | 0.57  | 6,0       | 7.57     | 7.4.                        | 12.02          |
| 6558 2.58   | 1.sdom                         | 6058  | 1.74          |            | 1.50  | 2,19 | 1,06 | 800   | +0.17     | 5.78     | 4.57                        | 1,2,           |
| 2255  | est lellowstone<br>tystic Lake | 6558  | 2.58<br>3.58  |            | 1.66  | 1,22 | 1.30 | 1.36  | 69.0-     | 9.87     | 16. (c<br>8.73              | 10°C+          |
| 2255 .92 .03 .446 .411 0.69 0.53 +0.01 3.04 2.98 2180 .55 .27 .55 .17 1.06 0.53 +0.01 3.04 2.98 2180 .55 .27 .22 .17 1.06 0.53 -0.08 2128 .73 .22   |                                | network | 2,21          | .59        | 1.53  | දීස  | 1.09 | रूं ० | 0.20      | 7.26     | 5°66                        | 4J°60          |
| ake 1962 .27 .27 .22 0.48 0.33 .0.08 1.86 2.40 2.45 2.25 0.48 0.35 .0.08 1.86 2.40 2.40 2.428 .73 .22 .22 0.48 0.45 .0.85 2.69 1.415 2.25 2.59 2.69 1.414 2.25 2.59 2.69 1.414 2.25 2.59 2.69 1.414 2.25 2.25 2.25 2.28 2.29 2.29 2.29 2.29 2.29 2.29 2.29  | ERN DIVISION                   | 2255  | . 92          | 03         | 9170  |      | 69.0 | 0.53  | +0°01     | 3.04     | 2,98                        | 90°0+          |
| 2 2428  |                                | 1962  | ,<br>10<br>10 | 770.       | , , , , , , , , , , , , , , , , , , ,           | , T. | 84°0 | 0.33  | 80.0      | 1.86     | 0 0<br>10<br>10<br>10<br>10 | -0°57          |
| 2 3139  | ircle                          | 21/28   | •73           | .22        | ů t   | 1    | 1    | 0.15  | -0.85     |          | 4.45                        |                |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$   | illings #2                     | 5159  | 98,           | •16<br>1,6 | 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1        | 219  | 0,48 | 0.45  | 0.39      | 69.6     | 110-11                      | 1075           |
| age (8) 3026 1.78 .64 .79 .14 0.65 0.70 -0.02 1.68 3.76 age (8) .58 .28 .62 .27 0.79 0.19 -0.22 3.37 3.55   | lendive                        | 2076  | 5,6           | 338        | 09°   | 10,  | 1.23 | 9,0   | -0.18     | 3.75     | 3.59                        | +0.16          |
| 66.6 16.6 25.0 84.0 01.0 12. 20. 02. 60. (8)  |                                | 3026  | 1.78          | 4          | e.79  | 司    | 0.63 | 0,70  | -0°05     | 14.68    | 3.76                        | 40°92          |
|   |                                | Anger (Cilipe)  | \$22          | Ω<br>Ν.,   | 700   | 17.  | 0/0  | 64°0  | 72°0      | 2°5!     | 5.55                        | ~0°18          |



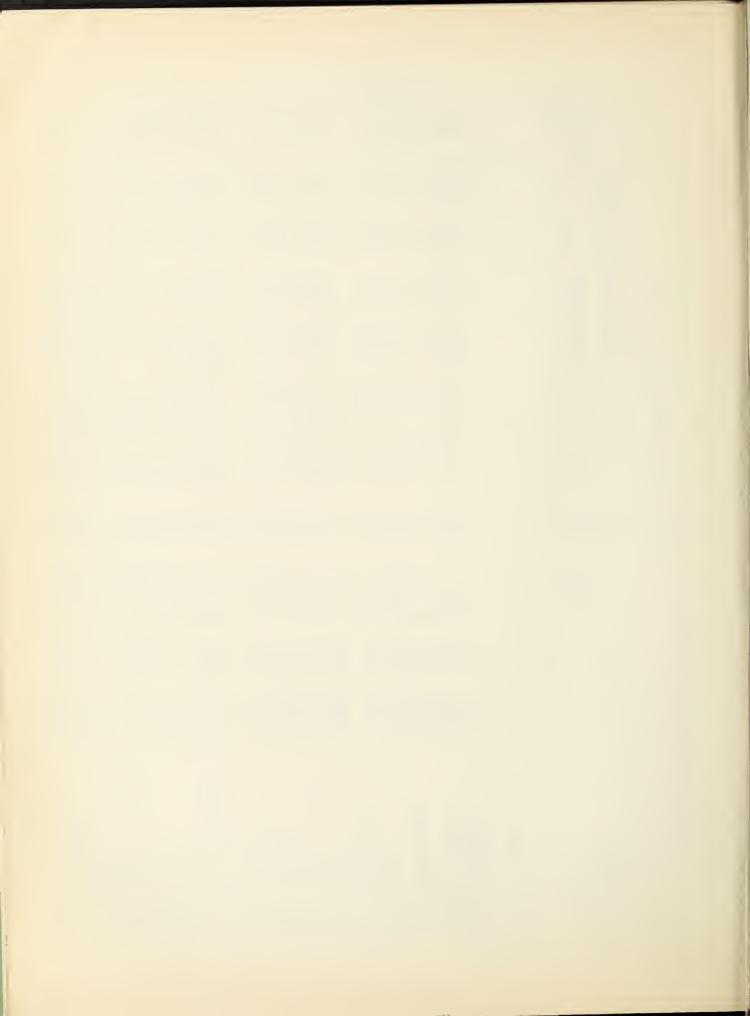
PRECIPITATION DATA FOR APRIL 1, 1952 NORTHERN WYOMING

|      | Accumulated Precipitation | Departure |                      | +0°30 | +0°16  | =1.08   | 06.0-         | -0.73    | -1.16  | 56.0°   |                    | 970-     |                    | 66°0~  | 1,26        | -0°75           | -1.36  | -0°00         |
|------|---------------------------|-----------|----------------------|-------|--------|---------|---------------|----------|--------|---------|--------------------|----------|--------------------|--------|-------------|-----------------|--------|---------------|
|      | ulated Pre                | Norma 1   |                      | 5,69  | 2°5    | 2,35    | 7,29<br>3,86  | 2.73     | 2.01   | ).T.o.C |                    | 5.05     |                    | 3.36   | 2,46        | 97017           | 01/01/ | 3.79          |
|      | Accum                     | 1951-52   |                      | 2,98  | 2,40   | 1,27    | 2,96          | 2000     | 1.85   | †       |                    | 4.59     |                    | 2.37   | 2,40        | 3°71            | 200    | 2,80          |
| 1952 | Dept. from                | Normal    |                      | =0°05 | +0°05  | -0.25   | -0.71         | -0°05    | -0.31  | -0.31   |                    | -0.31    |                    | -0. IL | 0,10        | \$1.°0°         | -0.39  | 610           |
|      |                           | Mare      |                      | 0.51  | 0.41   | 0.17    | 0,20          | 0.47     | 0.23   | 0°55    |                    | 0,85     |                    | 19.0   | 0.73        | 0,85            | 0,70   | 0.72          |
| 1952 |                           | Febo      |                      | 0.35  | 0.17   | 0.19    | 1,13          | 0°47     | 0.38   | 20,00   |                    | 1.39     |                    | 0.50   | 0,30        | 2,00            | 99,0   | 9 <u>1</u> 20 |
|      |                           | Jano      |                      | 0°30  | 0,22   | 0.01    | 0.07          | 0.05     | 0.35   | 7000    |                    | 0.15     |                    | 0.05   | 이<br>이<br>이 | 0,40            | 0.03   | 0.15          |
|      | noit                      | Dece      |                      | 0.30  | 0.39   | 0,10    | 0,29          | 0.25     | 0.53   | ۸۷°0    |                    | 0,68     |                    | 0,45   | 0,19        | 070             | 0,78   | 0+10          |
| 1951 | Precipitation             | Novo      |                      | 0.39  | 0,12   | 0000    | 0.28          | 60°0     | 0.12   | 0100    |                    | 0.15     |                    | 0.18   | 0,11        | 2000            | 0,36   | 0.26          |
|      | Pre                       | Octo      |                      | 1.17  | 1,09   | 0.31    | 1.027<br>0.93 | 29.0     | 0.24   | 7000    |                    | 1.37     |                    | 0.58   | 0,0%        | 000             | 0,47   | 0,20          |
|      | Eleva                     | ation     |                      | 7867  | 3825   | 4061    | 0220          | 1954     | 6917   |         |                    | 7,021    |                    | 3680   | 5280        | 4747<br>7000    | 1850   |               |
|      |                           | Station   | BIG HORN RIVER BASIN | Cody  | Lovell | Worland | Thermopolis   | Rivertôn | Dubois | Average | TONGUE RIVER BASIN | Sheridan | POWDER RIVER BASIN | Arvada | Metz Ranch  | Wind Wile Greek |        | Average       |

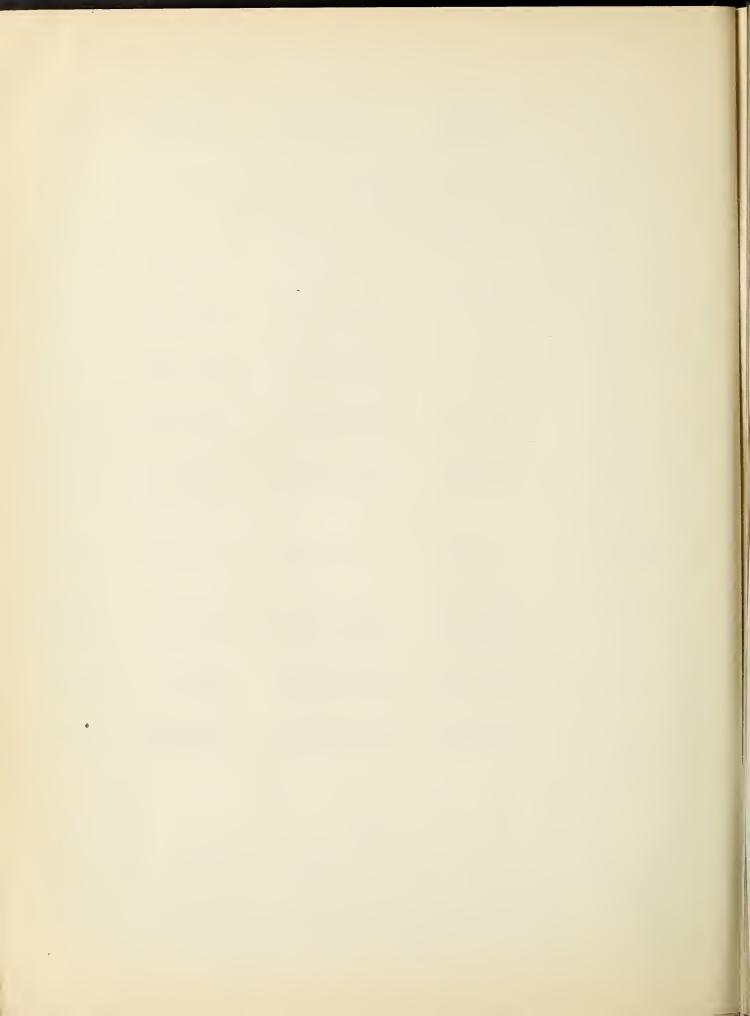
\*Note: Figures without a minus sign (-) are plus



| , ×             | တ လ :                 | <b>5</b> 4 02  |                 | ממשמ   | 122   | וטטט                                    | U LU LU                                | tana a   | nno-   | र प्रमुख   |                 |
|-----------------|-----------------------|----------------|-----------------|--|---|---|--|--|--|--|-----------------|
|                 | e Data                | 86             |                 | 105<br>122<br>138<br>123   | Water commence and the second               | 98                                      | 92                                     | 105  |  |  |                 |
| nes)            | Average<br>Apr.       | Avgo           |                 | 10.6   | 10.7  | 12.8                                    | 9.67                                   | 20.4<br>16.5<br>10.0                                   | 12<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20 | 40,00  |                 |
| Content (Inches | Special Confidence    | 1948           |                 | 10.0<br>11.3<br>2.8<br>7.8   | 8.01  | 10.2                                    | 10.5                                   | 27.52  | 10000  | 0,00   |                 |
| 1 1             | Records               | 1949           |                 | 10.0<br>12.7<br>4.1  | 11.0  | 15.2                                    | 12.8                                   | 24.5<br>19.6<br>11.8<br>29.0                           | 4899   | 10.6   |                 |
| Water           | Past R                | 1950           |                 | 11.6<br>10.3<br>7.2  | 15.5  | 11.6                                    | 7.5                                    | 18.2<br>15.4<br>8.8<br>30.00                           | 20,02  | 10.00  |                 |
|                 |                       | 1951           |                 | 10.1   | 8,6<br>14,9                                 | 15.4<br>20.5<br>12.5                    | 10,8                                   | 21°12<br>12°5<br>12°5                                  | 10 20 00 00 00 00 00 00 00 00 00 00 00 00  | 2000   |                 |
|                 | Apr. 1                | <u>1</u> 952   |                 | 11.1<br>11.6<br>2.8<br>8.7   | 17.1  | 11.5                                    | , a a<br>a a                           | 17.50  | 2400<br>2400   |  |                 |
| Snow            | Depth<br>(In.)        | 1952           |                 | 58<br>11<br>31   | 49<br>60<br>81                              | 计员公司                                    | 221                                    | 8228   | の名は中の  | 1 8 TW   |                 |
| Date            | of<br>Survey          | 1952           |                 | Apr. 1<br>Apr. 1<br>Mar. 11  | Mar. 31<br>Mar. 30<br>Mar. 31               | Mar. 15<br>Mar. 15                      |  | Mar. 16<br>Mar. 16<br>Mar. 25                          | Mar. 15  | 0 0 0  |                 |
|                 | Eleve                 |                |                 | 74,00<br>6930<br>6950<br>8850  | 6200<br>6800<br>6700                        | 7600<br>8100<br>7400                    | 7090                                   | 74440<br>6900<br>6700<br>6700                          | 7340<br>7300<br>6720   | 7000<br>8450<br>6300                             |                 |
|                 | NO.                   |                |                 | 11E3<br>11E4<br>12E2<br>1251   | 11E12<br>12E3<br>11E11                      | 15D10<br>15D9<br>15E1                   | 1352                                   | 1303<br>1304<br>1305<br>1305                           | ×C   |  |                 |
|                 | DRAINAGE BASIN<br>AND | SNOW COURSE ** | JEFFERSON RIVER | (Rock-Beaverhead) Lakeview Ridge Lakeview Canyon Limekiln White Pine Ridge | *Kilgore<br>*Camp Creek<br>*Blue Ledge Wine | Bloody Dick<br>Gold Stone<br>Lemhi Pass | Trail Creek Selway Junction (Bir Hole) | Big Hole Pass Big Hole Pass East Boundary Gibbons Pass | Jahnke Creek<br>Winer Forks<br>Winer Lake  | (Wise River) Anderson Meadow Elk Horn Wise River | Ad Jacent basin |

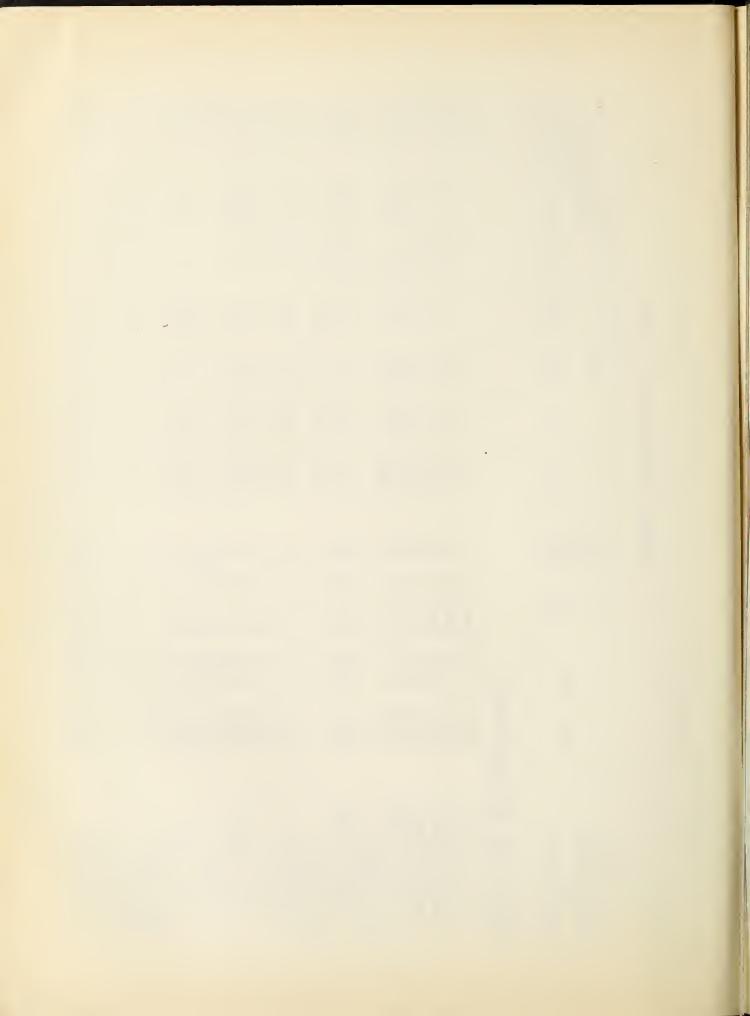


| <b>&gt;</b> 1  | <b>೦ ಪ</b> ಟ          | တ              |                          | $\nabla N \otimes \nabla N$  |               | 17<br>116<br>117<br>117   |                | SESEE  |                          | D W und   |
|----------------|-----------------------|----------------|--------------------------|--|---------------|---|----------------|--|--------------------------|---|
|                | ge Data               | 100            |                          | 126<br>128<br>113<br>114<br>257  |               | 160<br>169<br>173<br>169<br>197<br>205  |                | 2222<br>2222<br>2222<br>2222<br>2222<br>2222<br>2222<br>2222<br>2222 |                          | 127   |
| (Inches)       | Average<br>Apr.       | Avgo           |                          | 10.5<br>11.4<br>5.5<br>11.9  |               | 12.1<br>16.5<br>16.5<br>15.4<br>14.6<br>9.1   |                | 19.8<br>10.05<br>16.5  |                          | 12°0<br>13°2  |
| ent (In        |                       | 1948           |                          | 0.00<br>0.00<br>0.00<br>0.00   |               | 11. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.  |                | 27.4   |                          | 136.2   |
| er Content     | Records               | 1949           |                          | 11.9   |               | 14.6<br>14.4<br>20.6<br>27.8<br>22.5<br>18.8  |                | 21.0<br>10.9<br>11.4<br>20.6   |                          | 15°6<br>15°4<br>16°9  |
| Water          | Past ]                |                |                          | 11.5<br>12.1<br>4.8<br>11.4  |               | 14.0<br>25.0<br>25.0<br>27.0<br>19.5  |                | 20.22  |                          | 7000  |
|                |                       | 1951           |                          | 8.8<br>10.2<br>5.7<br>10.4   |               | 10.9<br>19.9<br>19.0<br>17.6<br>14.9  |                | 19.00  |                          | 10.6  |
|                | Apr. 1                | 1952           |                          | 13.6<br>14.6<br>13.6<br>2.6  |               | 19.6<br>18.9<br>24.7<br>30.4<br>30.0<br>12.7  |                | 13.00<br>13.00<br>13.00<br>13.00                                     |                          | 1,86,7  |
| Snow           | Depth (In.)           | 1952           |                          | 14264  |               | 67<br>57<br>80<br>91<br>82<br>81<br>45  |                | 8238738  |                          | 28238   |
| Date           | of<br>Survey          | 1952           |                          | Mar. 22<br>Apr. 4<br>Mar. 21<br>Mar. 21                                      |               | Mar. 27 Mar. 27 Mar. 28 War. 28 War. 28   |                | Mar. 31<br>Mar. 29<br>Mar. 29  |                          | Mar. 27<br>Mar. 31<br>Mar. 26   |
|                | Elev.                 |                |                          | 5900<br>8400<br>6950<br>6900<br>6125   |               | 6550<br>6700<br>7150<br>6500<br>3600<br>6500  |                | 8100<br>6600<br>6700<br>7150   |                          | 6200<br>6100<br>7000<br>7950  |
|                | No                    |                |                          | 11E2<br>11E1<br>12D3<br>12D2<br>11D1   |               | 11E5<br>11E7<br>11E6<br>11E9<br>11E10<br>11E8<br>10E2                               |                | 1004<br>1005<br>1002<br>1001<br>11E6                                 |                          | 1262  |
| MISSOURI BASIN | DRAINAGE BASIN<br>AND | SNOW COURSE ** | JEFFERSON RIVER (CONT'D) | (Ruby River) Cottonwood Cottonwood (Upper) Flashlight Tobacco Root Vigilante | MADISON RIVER | Hebgen West Yellowstone 21-Mile *Big Springs *Island Park *Valley View Norris Basin | GALLATIN RIVER | Devil's Slide<br>Hood Meadow<br>Mystic Leke<br>New World<br>21-Mile  | MISSOURI RIVER MAIN STEM | Chessman Reservoir<br>Crystal Lake<br>Grasshopper<br>Kings Hill<br>* Adjacent Basin |



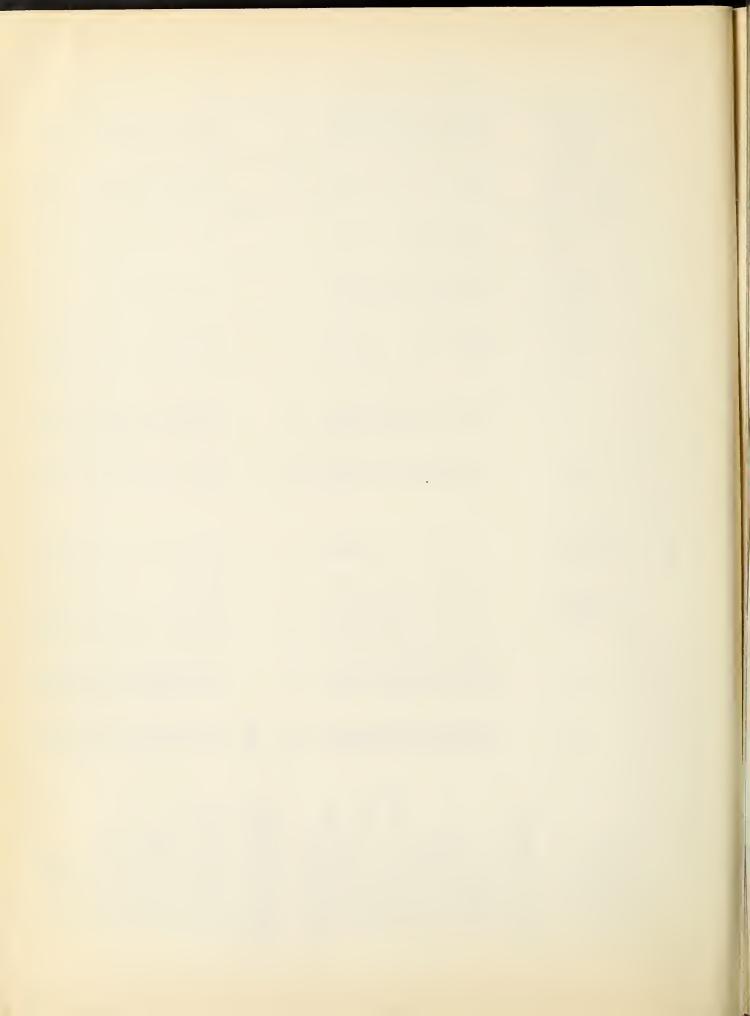
MONTANA SNOW SURVEYS AFRIL 1, 1952

| 7                | 0 ø                   | _              |  |                                   | α              | > =            | 1=           | 12             | 17              | 17                           | ΓĽ           | ر<br>در       | ر<br>د    | ١           | ע         | \- <u>-</u> |        | \          | 177           | К       | \_ <u></u>  |             | †<br>——        |             |              | <del>-</del>            | 5           |
|------------------|-----------------------|----------------|--|-----------------------------------|----------------|----------------|--------------|----------------|-----------------|------------------------------|--------------|---------------|-----------|-------------|-----------|-------------|--------|------------|---------------|---------|-------------|-------------|----------------|-------------|--------------|-------------------------|-------------|
|                  | ge Data               |                |  |                                   | 2/12           | 127            | 7-           | 2/12           | 126             | 120                          | 96           | 8             | 6         | `           | 100       | 102         | 106    | 107        | 117           |         | 88          | 16          |                | 124         |              | 23                      | 164         |
| (seg             | Average               | Avg            | ·************************************* |                                   | 0              | ָז נ <u>ְ</u>  | ຸດ           | 200            | 10,3            | 13.2                         | 18.8         | 8,6           | 19,7      |             | 11,6      | 8,0         | 9.1    | 12,3       | 10,0          | ,       | 24.6        | 17,2        | ~              | 17.5        |              | 5.5                     | 5.1         |
| Content (Inches) |                       | 1948           |  |                                   | 1.7            | 100            | 10,2         | 0              | 17,01           | 18,1                         | 13.4         | 0,9           | 13.6      |             | 9.3       | 000         | 8,8    | 00         | 11,07         |         | 8           | 9           |                | 18.9        |              | 6.7                     | 6.8         |
| 1                | Doord                 | 1949           |  |                                   | 7.6            | 2,0            | 13,5         | , ω            | 12,8            | 14.8                         | 17.9         | 9,5           | 19,9      |             | 12,0      | 7.5         | ω ω    | 11,07      | 13.4          |         | 22,5        | 15.7        |                | 21.4        |              | . 2.9                   | 8,1         |
| Water            | Dec                   |                |  |                                   | 9              | 7              | 11,6         | 7,6            | 12,8            | 15,8                         | 22.3         | 10,7          | 24.6      |             | 12,8      | 9.5         | 0,0    | 13.1       | 15,2          |         | 28,5        | 2002        |                | 28.7        |              | 17.<br>Ed               | 5.8         |
| _                |                       | 1951           |  |                                   | 5,6            | 6,8            | 11,1         | 8,3            | 12,0            | 15.4                         | 22,3         | 706           | 21,0      |             | 12.3      | 6.7         | 9.2    | 11.5       | 12,7          |         | 26,2        | 17.3        |                | 24.5        |              | 3.8                     | C. 1        |
|                  | Ann                   | 1952           |  |                                   | 0.9            | 7.6            | 13.4         | 7.6            | 13.0            | 15.8                         | 18,1         | 7.2           | 19.6      |             | 11.6      | 8,2         | 9.6    | 12,8       | 14.04         |         | 21,2        | 15.6        |                | 2002        |              | 5.3                     | 8.h         |
| Snow             | Depth                 | 1952           |  |                                   | 24             | 34             | 2            | 36             | <u>1</u> 48     | 26                           | 55           | 23            | 53        |             | 36        | 31          | 31     | 75         | 747           | ured    | 09          | γ†8         |                | 58          |              | 30                      | 32          |
| Da te            | of                    |                |  |                                   |                |                | 23.          |                | ٠<br>•          | el<br>•                      |              | . 29          |           |             | 2         | 31          | त्र    | 23         | 31            | тев     | 28          | 28          |                | 56          |              | gj                      | 33          |
| Da               | 0 1                   | 19             |  |                                   | Mare           | Mar            | Mer          | Apr            | Apro            | Apr                          | Mar          | Mar           | Mar       |             | Mar       | Mar         | Mar    | Mar        | Mar           | Not     | Mar         | Mare        |                | Mar         |              | Apro                    | Mar         |
|                  | R. O.W.               |                |  | 'd)                               | 6500           | 7200           | 0069         | 6250           | 9800            | 8000                         | 0009         | 2600          | 9009      |             | 5500      | 2400        | 2600   | 5300       | 2000          | 7300    | 9800        | 2200        |                | 5250        |              | 5200                    | 2000        |
|                  | Z                     | 2              |  | (Cont                             | 1306           | 1201           | 1201         | 1202           | 1203            | 1204                         | 12A1         | 12B2          | 12B1      |             | 12B8      | 12B6        | 12B9   | 12B5       | 12B7          | 13B9    | 12B3        | 12.B/4      |                | 12B5        |              | 9A1                     | 1002        |
| MISSOURI BASIN   | DRAINAGE BASIN<br>AND | SNOW COURSE ** |  | MISSOURI RIVER MAIN STEM (Cont'd) | Picnic Grounds | Pipestone Pass | Stemple Pass | Tenmile, Lower | Tenmile, Middle | Tenmile, Upper (Teton River) | Fright Creek | Waldron Creek | West Fork | (Sun River) | Benchmark | Cabin Creek | 5-Bull | Gates Park | Goat Mountain | My Lake | Wrong Ridge | Wrong Creek | (Marias River) | Marias Pass | (MILK KIVET) | Rocky Boy (Wusselshell) | Grasshopper |



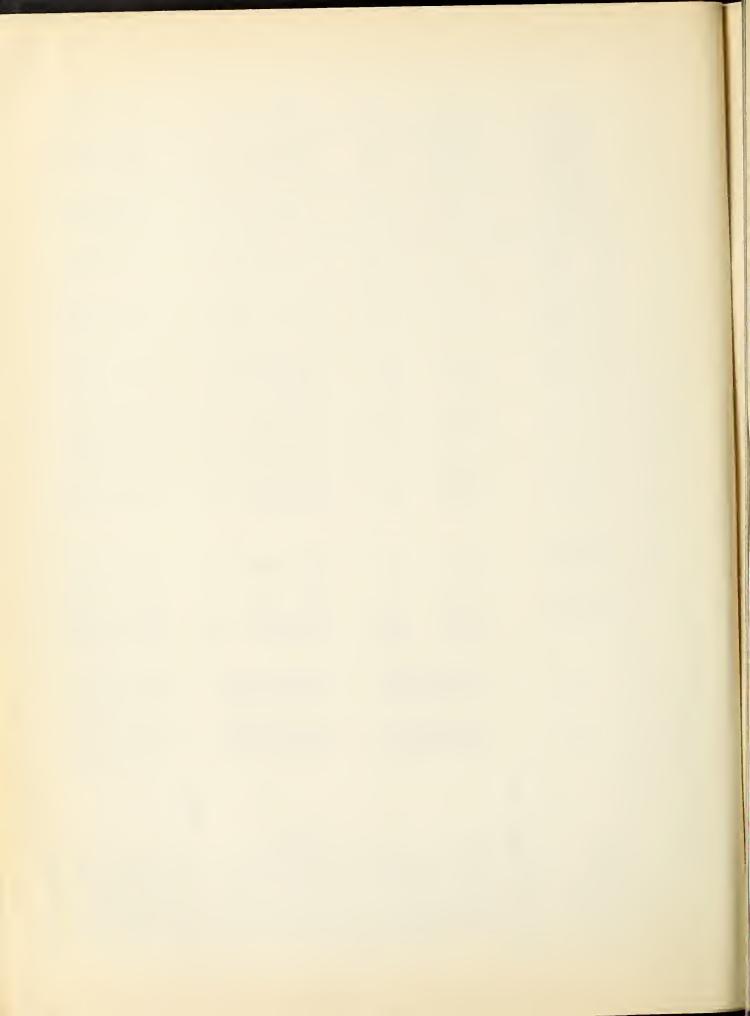
MONTANA SNOW SURVEYS APRIL 1, 1952

| X               | 0 ed                     |                |   | t %   | 2017 דר 17 דר  | www                                  |
|-----------------|--------------------------|----------------|---|---|--|--------------------------------------|
|                 | ge data                  | 6              |   | 107<br>130<br>149<br>125<br>125<br>128<br>118   | 111,<br>70,<br>72,<br>88,<br>83,<br>102,<br>112,   | 86                                   |
| hes)            | Average                  | Avgo           |   | 1,000   | 26.5<br>23.5<br>23.5<br>23.5<br>23.5<br>23.5<br>23.5<br>23.5<br>23                                     | 16,0                                 |
| Content (Inches |                          | 1948           |   | 001101010100<br>0011010101000<br>00010101010000   | 24.6<br>7.9<br>8.0<br>5.9  | 8 6 8                                |
| 1               | Records                  |                | Same Same Same Same Same Same Same Same | 100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100  | 22 20 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | 22.8                                 |
| Water           | Past R                   | 1950           |   | 18.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>13.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00<br>10.00 | 1177° 28 28 28 28 28 28 28 28 28 28 28 28 28   | 18.2                                 |
|                 |                          | 1951           |   | 100,000 1111110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 110000 110000 110000 110000 110000 110000 110000 110000 1100000 1100000 1100000 1100000 1100000 1100000 1100000 1100000 11000000   | 25 25 25 25 25 25 25 25 25 25 25 25 25 2   | 17.9<br>9.7<br>20.9                  |
|                 | Apr. 1                   | 1952           |   | 7.11142411424114241142411424114241142411  | 00000000000000000000000000000000000000   | 11, 5<br>7.4<br>23.0                 |
| Snow            | $_{ m (In.)}^{ m Depth}$ | 1952           |   | 25 1029<br>1029<br>1029<br>1029<br>1029<br>1029<br>1029<br>1029   | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   | 1.8                                  |
| te<br>te        | r<br>vey                 | 25             |   |   | n m m m m m  | 0000                                 |
| Date            | of<br>Survey             | 1952           |   | Mar. Mar. Mar. Mar. Mar. Mar. Apr. Apr. Apr.  | Mar. Mar. Apr. Apr. Mar. Mar.  | Apr.                                 |
|                 | Eleve                    |                |   | 7890<br>7750<br>7400<br>8000<br>7850<br>7700<br>7700<br>7900  | 9200<br>8800<br>8750<br>8500<br>9500<br>7500<br>8000   | 10000                                |
|                 | Noo                      |                |   | 9D1<br>10E2<br>10D7<br>10D5<br>10D6<br>10E4<br>9E1<br>10E9<br>10E9<br>10E9<br>10E7<br>10C2  | 951<br>951<br>951<br>951<br>951  | 9F10<br>9F9<br>9G2                   |
|                 |                          | SNOW GOURSE ** | UPPER YELLOWSTONE                       | m i i de  | brooks Lake #5 Burroughs Creek Du Noir Geyser Creek Little Warm- Sheridan T-Cross Ranch *Togwotee Pass | Dinwoodie<br>Dry Creek<br>Hobbs Park |



MONTANA SNOW SURVEYS AFRIL 1, 1952

| >-         | 0 00                  | Approximate to a |                            | ω             | 6.           | 7        |              | 17          | 15            |                 | 7          | 191              | 2   | Z;               | 5             | 17         |                          | , t.         | <b>-</b>     | 7,4        | 122            | 15           |
|------------|-----------------------|------------------|----------------------------|---------------|--------------|----------|--------------|-------------|---------------|-----------------|------------|------------------|---|------------------|---------------|------------|--------------------------|--------------|--------------|------------|----------------|--------------|
|            | ge Data               | 86               |                            | 154           | 132          | 143      |              | 115         | 106           |                 | 2          | 186              | 78  | 188              | 100           | 156        |                          | ਲੋ           | 8 8          | S 6        | ק/ר<br>קונר    | 119          |
| (Inches)   | Average<br>Apr.       | Avge             |                            | 9.1           | 8,0          | 7.0      |              | 21.6        | 2.9           |                 | 11.2/      | 12.3             | 16.5  | 00%              | 100X          |            |                          | 8,           | 000          | 0 1        | 200            | 000          |
|            |                       | 1948             |                            | 8             | 1            | 1        |              | 20.3        | 6.47          |                 | 11.5       | 16.3             | 8 6   | LO.O.            | 24.07         | 0°0        |                          | 8            | t.           | 0 0        | 2,0            |              |
| er Content | Records               | 1949             |                            | 9.3           | 7.6          | ω<br>ω   |              | 23.6        | ໙ູ            |                 | 16,7       | 17.5             | 0 (   | 10°./            | C.01          | 0°0        |                          | 7.99         | 0,0          | , c        | ,<br>8,7,      | 0,00         |
| Water      | Past F                | 1950             |                            | 12,6          | 10.2         | 7.3      |              | 28.9        | 0             |                 | 20,5       | 24,2             | ω <sub>0</sub> (  | √.<br>√          | 7,            | 11,2       |                          | 0,           | 0,0          | / o /      | 200            | 0.6          |
|            | and Confirmation      | 1951             |                            | 8.0           | 7.8          | 2,0      |              | 30°2        | 9,6           |                 | 11,2       | 12.7             | 15.9  | 7000             | 200 77        | 10.04      |                          | 0            | 200          | 7 ° ′      | 7,27           | 7.1          |
|            | Apr. 1                | 1952             |                            | 12,2          | 10.5         | 10.0     |              | 24.07       | 7.07          |                 | 24.8       | 22,9             | 12°8  | 5<br>5<br>7<br>7 | C) 0 T        | 11.0       |                          | 6°9          | ) L          | v          | 10.0           | 10.3         |
| Snow       | Depth (In.)           | 1952             |                            | 45            | 37           | 27       |              | 78          | 20            |                 | 9          | 75               | ₹<br>2.5  | 7 K              | 2             | 43         |                          | 27           | Ω<br>Ο ν.    | † a        | 17             | 45           |
| Date       | of<br>Survey          | 1952             |                            |               | Mar. 27      | Mar. 26  |              | Mar. 29     | Apr o 1       |                 | Mar. 28    | Mar. 25          |   | Mar OF           | 0             | Apr.       |                          |              |              |            | Mare 31        |              |
|            | Eleve                 |                  |                            | 9500          | 9000         | 2006     | 8500         | 8600        | 07.75         |                 | 9500       | 0006             | 000<br>000<br>000<br>000<br>000<br>000<br>000<br>000<br>000<br>00 | 0006             | 8900          | 8700       |                          | 8000         | 00/0         | 8000       | 8200           | 8800         |
|            | No                    |                  | d)                         | 963           | 9411         | 9F12     | 10F5         | 10F3        | 10F7          |                 | 862        | 864              | すら  | 863              | 965           | 926        |                          | 9F8          | o o          | 0E7        | 700            | 7E1          |
|            | DRAINAGE BASIN<br>AND | SNOW COURSE **   | LOWER YELLOWSTONE (Cont'd) | Mosquito Park | St. Lawrence | *Kendall | *Loomis Park | *Black Rock | Textow vacket | POPO AGIE RIVER | Blue Ridge | Grannier Meadows | Sermal Cleak  | South Pass       | Mulligan Park | *Dutch Joe | BIG HORN RIVER (Wyoming) | Beavers Mill | Figher Cross | Wood River | Tensleep R. S. | Ranger Creek |

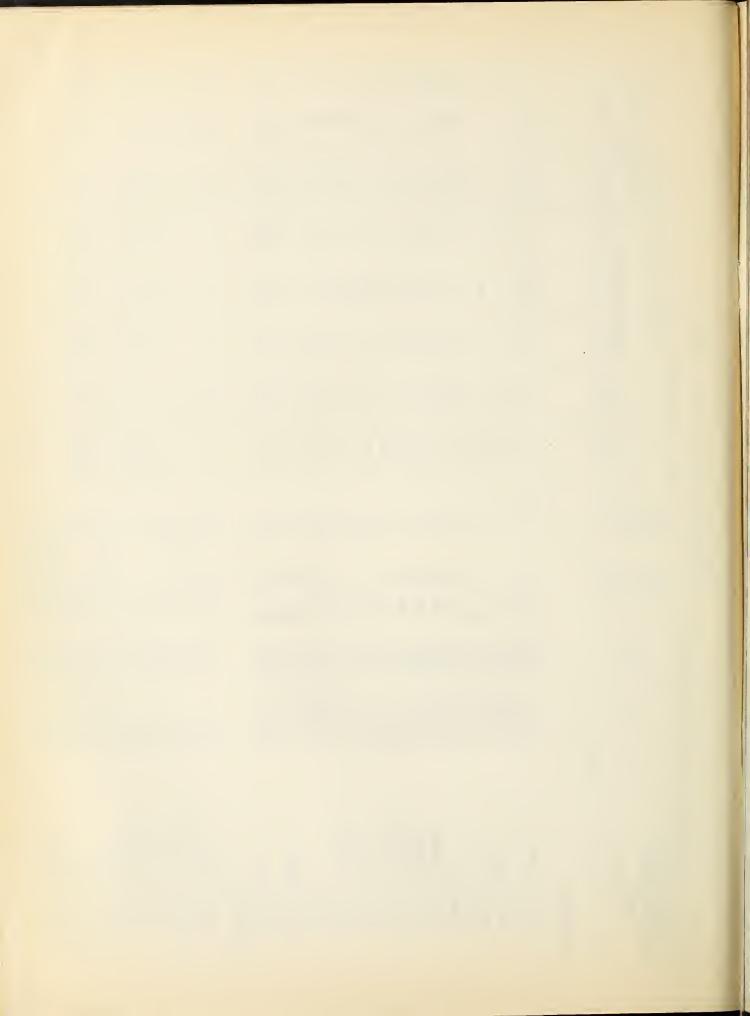


MONTANA SNOW SURVEYS APRIL 1, 1952

| MISSOURI BASIN   |                   |                              | Date         |       | Snow                 |                              |   | Wate                                    | Water Content (Inches                   | nt (Incl | hes)            |        | ×           |
|--|-------------------|------------------------------|--------------|-------|----------------------|------------------------------|---|---|---|----------|-----------------|--------|-------------|
| ~  | Noo               | Elevo                        | of<br>Survey |       | Depth<br>(In.)       | Apr. 1                       |   | Past F                                  | Past Records                            |          | Average<br>Apr. | e Data | <b>ග</b> ගේ |
| SNOW COURSE **   |                   |                              | 1952         |       | 952                  | 1952                         | 1951                                    | 1950                                    | 1949                                    | 1948     | Avgo            | %AVE.  | 2400        |
| SHOSHONE RIVER   |                   |                              |              |       |                      |                              |   | en-delet soloidele du revalu virolinado | *************************************** |          |                 |        |             |
| East Entrance<br>Sylvan Pass                             | 10E6<br>10E5      | 7000                         | Mar.         | M (V) | 148<br>54            | 17.2                         | 14.3                                    | 11.3                                    | 17.6                                    | 14.8     | 44.9            | 93     | 15          |
| TONGUE RIVER   |                   |                              |              |       |                      |                              |   |   |   |          |                 |        |             |
| Burgess Junction<br>Big Goose<br>Dome Lake               | 7E4<br>7E2<br>7E5 | 7900<br>7700<br>9000         | Apr.         | ימיט  | 19                   | 12.4                         | 15.8                                    | 12°0                                    | 5.3                                     | 0,0      | 13.4            | 116    | 133         |
| POWDER RIVER   |                   |                              |              |       |                      |                              |   |   |   |          |                 |        |             |
| Sour Dough<br>North Powder<br>Soldier Park<br>Muddy Pass | 6E1<br>7E8<br>7E6 | 8500<br>8500<br>8700<br>9700 | Mar. Apr.    | 27    | 32<br>38<br>20<br>46 | 10°0<br>00°0<br>00°0<br>00°0 | 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 5°1<br>4°6<br>8°4                       |   | 0 1 1    | 0.1.0.0         | 113    | 9000        |
| CHEYENNE RIVER<br>(South Dakota)                         |                   |                              |              |       |                      |                              |   |   |   |          |                 |        |             |
| Upper Spearfish<br>Upper Castle<br>Deerfield             | L S.D.            | 6500 Mar.                    |              | 58    | 38                   | 10.2                         | 2.5                                     | 6.2                                     | 10.8                                    | 6.3      | 9°9             |        | 0           |



| Creek  | COLUMBIA BASIN |              |       | Date       | Snow             |        |        | Water | er Content |                  | (Inches)   |                | >-       |
|--|----------------|--------------|-------|------------|------------------|--------|--------|-------|------------|------------------|------------|----------------|----------|
| 1952   1952   1954   1956   1349   1948   Avg.      | N TOWN         | No           | Elev. | Survey     | Depth (In.)      | Apr. 1 |        |       | Records    |                  | Avera      | ge Date        |          |
| Treek Cented 7500 Mar. 28 38.0 11.6 11.6 11.9 19.0 12.0 99  Ridge Canada 7500 Mar. 21 14.0 11.6 16.7   | - 1            |              |       | 1952       | 1952             | 1952   | 1951   |       | 1949       | 1948             | Avgo       | %AVE           | មល       |
| Canada   11,44    5000   Mar. 28   38.0   11.6      |                |              |       |            |                  |        |        |       |            |                  |            |                |          |
| Canada   5500   War. 31   27.0   9.0   11.6   14.9   7.7   8.44   7.8   115  | reek           | 1/4/1        | 5000  |            | 38.0             | 11.8   | 11.6   | 18,9  | 19.0       | 8                | 12.0       | 6              | ω        |
| Ridge  |                | Canada       | 3500  |            | 27.0             | 0°6    | 11.6   | 14.9  | 7.7        | 8.4              | 7.8        | 115            | 16       |
| Ridge   Canada   5600   Apr.   1   68   24,11   2-7    | nie            | Canada       | 7100  |            | o <del>1</del>   | 14.6   | 16.7   | 8     | 8          | ŀ                | 1          | 1              | Q        |
| m         Cenach         3000         Mar. 31         16         19.2         23.7         22.9         21.1         22.7         19.5         5.5         13.6           Curyon         Cenach         5000         Mar. 21         16         13.4         22.0         7.1         5.5         13.6           Gravy         Cenach         5000         Mar. 29         1/7         17.6         18.0         19.9         18.8         15.0         13.9         13.9           Wontens         15A1         4500         Mar. 27         52         18.2         22.0         30.4         11.0         19.9         18.8         15.0         13.9         13.9           Nomers         Canach         1500         Mar. 27         52         18.2         22.0         30.4         41.0  | Ridge          | Canada       | 2600  |            | 89               | 24.1   | 8      | 8     | 8          | 3                | ŀ          | ı              | ~        |
| ey         Canada         360         Mar.         31         23         7.3         9.4         13.2         7.3         5.5         5.3         13.6   | r.             | Canada       | 3000  |            | 917              | 19,2   | 23.7   | 22.9  | 21,1       | 22.7             | 19.5       | 8              | 15       |
| Canyon Canada 5000 Mar. 21 46 13.44 22.0 15.0 13.0 13.5 15.0 90  Montant 1541 6000 Mar. 27 52 18.2 2.0 30.44 21.2 15.0 13.0 13.5 15.0 13.0 Mar. 27 52 18.2 2.0 30.45 18.8 15.0 13.5 11.0 11.0 14.0 15.1 18.0 18.8 15.0 11.0 15.1 18.0 Mar. 27 52 18.2 18.2 18.2 18.2 18.0 18.8 15.0 18.8 15.0 18.0 Mar. 29 18.2 18.2 18.2 18.2 18.2 18.2 18.2 18.2   | ley            | Canada       | 3800  |            | 23               | 7.3    | 7.6    | 11,2  | 7.1        | 5,2              | 5.3        | 138            | 13       |
| Creek   Canada 3050   Mar. 29   U7   17.6   18.0   19.9   18.8   15.0   13.5    | Canyon         | Canada       | 2000  |            | 9†7              | 13.04  | 22.0   | 15.7  | 13.0       | 13,2             | 15.0       | 8              | 16       |
| Montana   15A1   6000   Mar. 27   52   18.2   22.0   30.4   21.5   19.2   18.4   99  | Creek          | Canada       | 3050  |            | 47               | 17.6   | 18,0   | 19,9  | 18,8       | 15.0             | 13.5       | 130            | 15       |
| r Pass Canada 4500 Mar. 31 20 5.44 9.5 5.9 3.6 4.0 4.9 110 110 110 110 110 110 110 110 110 11  | . Montana      | 15A1         | 0009  |            | 52               | 18.2   | 22.0   | 30.4  | 21.3       | 19,2             | 18.4       | , 8            | 'n       |
| reek 16A1 4800 Apr. 1 116 444.0 50.5 56.1 149.2 142.2 141.8 105 105 105 105 105 105 105 105 105 105  | ir Pass        | Canada       | 7200  |            | 20               | 5.4    | 9.5    | 5,9   | 3.6        | 0.7              | 6.7        | 110            | 16       |
| Name   Canada   5100   Mar. 31   47   11.5   18.6   21.2   17.5   14.7   14.2   17.5   14.7   14.5   17.5   14.7   14.5   17.5   14.7   14.5   17.5   14.5   | Creek          | 16A1         | 7,800 | Anre       | 116              | 111.0  | 50.5   | 78.   | 10,2       | 0 0              | ر د ا<br>ا | י ר<br>ה       | ] -      |
| 1k River         Canada         1µ00         Apr.         1         2µ         7₀µ         10.9         1n.6         7₀µ         9₀₁         9₀₁         9₀₁         9₀₁         0₀₁ <t< td=""><td>an Mine</td><td>Canada</td><td>5100</td><td>Mar. 31</td><td>747</td><td>11,3</td><td>18,8</td><td>22,02</td><td>15,2</td><td>7,017</td><td>16,2</td><td>25</td><td>10</td></t<>   | an Mine        | Canada       | 5100  | Mar. 31    | 747              | 11,3   | 18,8   | 22,02 | 15,2       | 7,017            | 16,2       | 25             | 10       |
| Canada 2000 Mar. 31 '46 19.2 23.7 22.9 21.1 22.7 19.5 99  Canada 5100 Mar. 31 '46 19.2 23.7 12.9 12.0 14.5 11.0 14.5 11.0 14.1 10.7 14.5 11.0 14.4 10.0 Mar. 31 21 10.0 14.5 12.0 11.0 14.5 12.0 15.2 14.5 12.0 15.2 14.5 12.0 15.2 15.0 15.0 15.2 15.0 15.0 15.2 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0  | 31k River      | Canada       | 7,400 | Apr. 1     | :ਹੋ              | 7.04   | 10.9   | 30,0[ | יה"        | 6                | 9.1        | (건<br>(건       | ٦ -      |
| caneda         5100         Mar.         50         92         17.5         15.2         12.5         16.7         14.5         119         119         119         119         119         119         119         119         119         110 <th< td=""><td>uc</td><td>Canada</td><td>3000</td><td></td><td>9<sup>†</sup>/</td><td>19.2</td><td>23.7</td><td>22.9</td><td>21,1</td><td>22.7</td><td>19.5</td><td>66</td><td>12</td></th<>   | uc             | Canada       | 3000  |            | 9 <sup>†</sup> / | 19.2   | 23.7   | 22.9  | 21,1       | 22.7             | 19.5       | 66             | 12       |
| cek         Canada 5100         Mar. 31         63         19.1         23.0         24.0         20.5         19.6         21.2         90           rd         Canada 5500         Mar. 31         34         12.0         11.8         11.4         10.7         11.2           rd         LdA1         6800         Mar. 21         34         12.0         11.6         12.8         11.4         10.7         11.2           re Rs s         13D2         7100         Mar. 25         38         10.3         20.0         29.0         29.0         20.0   | art.           | Canada       | 2100  |            | かる               | 17.5   | 17.5   | 15,2  | 12.5       | 16.7             | 74.5       | 119            | 18       |
| rd Canada 2500 Mar. 31 34 12.0 11.8 14.5 12.8 11.4 10.7 112  rk R. S. 13D1 5400 Mar. 25 38 10.3 5.2 7.6 10.8 6.5 55.5 114,  Fass 13D2 7100 Mar. 25 86 45.7 28.3 30.0 29.0 25.0 22.8 201  ek Pass 14.01 4500 Not measured 20.0 15.2 16.0 20.8 14.9 13.0 154  e Pass 14.01 6575 Apr. 1 76 24.6 20.0 24.0 23.0 23.0 154  from 14.01 6575 Mar. 28 62 22.0 18.0 24.0 23.0 15.0 165  event 14.01 6570 Not measured 20.0 18.0 18.4 28.3 36.2 35.7 25.0 106  Fass 14.04 6000 Not measured 20.0 18.0 18.0 18.5 15.5 14.7  Fass 14.04 6000 Not measured 20.0 18.0 18.0 10.0 10.0 10.0 10.0 10.0 1  | reek           | Canada       | 5100  |            | 63               | 19,1   | 23.0   | 24.0  | 20°5       | 19.6             | 21,2       | 96             | R        |
| rk R. S. 13D1 5400 Mar. 25 58 10.5 9.2 7.6 10.6 6.5 5.1 202  Pass 15D2 7100 Mar. 25 86 45.7 28.3 50.0 29.0 25.0 22.8 14.9 15.0 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15  | or S           | Canada       | 2500  |            | 15°              | 1200   | 11.8   | 14,05 | 12,8       | 11.4             | 10.7       | 112            | 15       |
| S. 13D1 5400 Mar. 25 38 10.3 5.2 7.6 10.8 6.5 5.1 202 13D2 7100 Mar. 25 86 45.7 28.3 30.0 29.0 25.0 22.8 201 14C1 4500 Not measured 14D2 5580 Apr. 1 76 20.6 20.0 20.0 20.0 14.9 15.0 14.3 15C3 7258 Mar. 31 81 26.6 34.04 26.3 36.2 33.7 25.0 10.5 14.0 15.0 10.5 14.0 Not measured 15.0 18.0 11.0 10.5 10.5 11.0 | 3              | 74           | 000   |            | 207              | †° 0†7 | 45.5   | 7,007 | 38°5       | 20°9             | 55.5       | 777            | #        |
| S. 13D1 5400 Mar. 25 38 10.3 9.2 7.6 10.8 6.5 5.1 202 13D2 7100 Mar. 25 86 45.7 28.3 30.0 29.0 25.0 22.8  ture 14c1 4500 Not measured 14.01 6575 Apr. 1 76 20.0 20.0 20.0 24.0 25.6 17.2 14.3 14.01 6575 Apr. 1 76 20.6 34.4 26.3 36.2 35.7 25.0 106 13c1 7400 Not measured 15c1 7400 Not measured 15c2 5700 Not measured 15c3 3700 Not measured 15c3 5700 Not measured 15c3 5700 Not measured 15c3 5700 Not measured  |                |              |       |            |                  |        |        |       |            |                  |            |                |          |
| ture 140 Mar. 25 60.0 15.2 16.0 29.0 25.0 22.8 201 14.9 15.0 14.0 15.2 14.0 25.0 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.2 14.0 15.0 10.0 10.0 15.0 10.0 14.0 15.0 14.0 15.0 10.0 14.0 15.0 14.0 15.0 14.0 15.0 14.0 15.0 14.0 15.0 14.0 15.0 14.0 15.0 15.0 14.0 15.0 14.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 14.0 15.0 15.0 15.0 14.0 15.0 15.0 15.0 14.0 15.0 15.0 15.0 15.0 15.0 15.0 14.0 15.0 15.0 15.0 15.0 15.0 14.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15   |                | 1501         | 2400  | Mar. 25    | 28               | 1007   | 0,0    | 7.6   | 30°8       | 6,5              | 5,3        | 202            | <b>#</b> |
| 14.02 5580 Apr. 1 56 20.0 15.2 16.0 20.8 14.9 13.0 154 14.0 14.0 15.2 14.0 20.0 24.0 25.6 17.2 14.3 14.0 156 20.0 20.0 24.0 25.6 17.2 14.3 14.0 156.3 7258 Mar. 31 81 26.6 34.04 26.3 36.2 35.7 25.0 106 13.0 13.0 10.0 Not measured 12.0 18.0 18.0 11.0 10.0 10.0 10.0 10.0 10  | Parting        | 2001<br>[2.] | 1,500 | Mar. 75    | 00               | 1,047  | 5°22   | 2000  | 29.00      | 2500             | 22,08      | 20<br>20<br>20 | 7        |
| 1401 6575 Apr. 1 76 21.6 20.0 20.0 24.0 25.6 17.2 14.3 15.5 14.0   | e Camp         | 247          | 7580  | Anr. 1     | irea<br>56       | 000    | מ      | 140   | 000        | 0                | ט אַנ      | ر<br>ر         | 36       |
| it 1363 7258 Mar. 31 81 26.6 34.4 26.3 36.2 35.7 25.0 106 1361 7400 Not measured 13016 6200 Mar. 28 62 22.0 18.0 18.4 21.2 18.5 15.5 14.7 1405 1405 1700 Apr. 1 38 12.0 9.4 9.0 11.0 10.1 7.2 16.7 1404 6000 Not measured 1563 3700 Not measured 1462 5700 Not measured  | e Pass         | ומית         | 6575  | Apr        | 2/2              | 200    | 1000   | 200   | 200        | 220              | 2,000      |                | 3 %      |
| 13c1 7400 Not measured 13b16 6200 Mar. 28 62 22.0 18.0 18.4 21.2 18.5 15.5 14.7 14b5 1.700 Apr. 3 58 12.0 9.4 9.0 11.0 10.3 7.2 16.7 14c4 6000 Not measured 15c3 3700 Not measured 14c2 5700 Not measured  | 10 Summit      | 1363         | 7258  | Mare 31    | 8                | 26.6   | 3/10/1 | 26.3  | 36.2       | 22.7             | 0,00       | 1,55           | =        |
| 15016 6200 Mar. 28 62 22.0   18.0   18.4   21.2   18.5   14.7   14.0   14.0   10.2   15.5   14.7   14.0   15.5   14.7   14.0   15.3   14.7   14.0   15.3   16.7     | Mt. #1         | 1361         | 2/100 | Not measu  | red<br>par       |        | 1      |       | )          |                  |            | )<br>t         | †        |
| 1404 6000 Not measured 1503 5700 Not measured 1503 5700 Not measured 1503 5700 Not measured 1503 5700 Not measured 1603 5700 Not measured 1603 5700 Not measured   | reek           | 15016        | 6200  | 28         |                  | 22.0   | 18,0   | 7,8   | 2          | 18,5             | 5          | 2)12           | 9        |
| e 1563 3700 Not measured  1563 5700 Not measured  Not measured   | uos            | 2/103        | 700   | Apr.       |                  | 12,0   | 700    | 0.00  | Coll       | 100              | -3/61      | 167            | 97       |
| # 1462 5700 Not  | රු දැන්න න     | זלכל         | 0009  | Not measu  | เรายน้           |        |        | . ~   |            | gar v - 18 mg Am |            |                |          |
| 20NI 00/   | Mean of        | いった          | 2/00  | Not measu  | ಗ್ eದ<br>ಗ್ರಾ    |        |        |       |            |                  |            |                |          |
|  | T Best         | 1            | 3     | NO TIERRAN | מים מים          |        |        | -     | -          | **               |            |                |          |



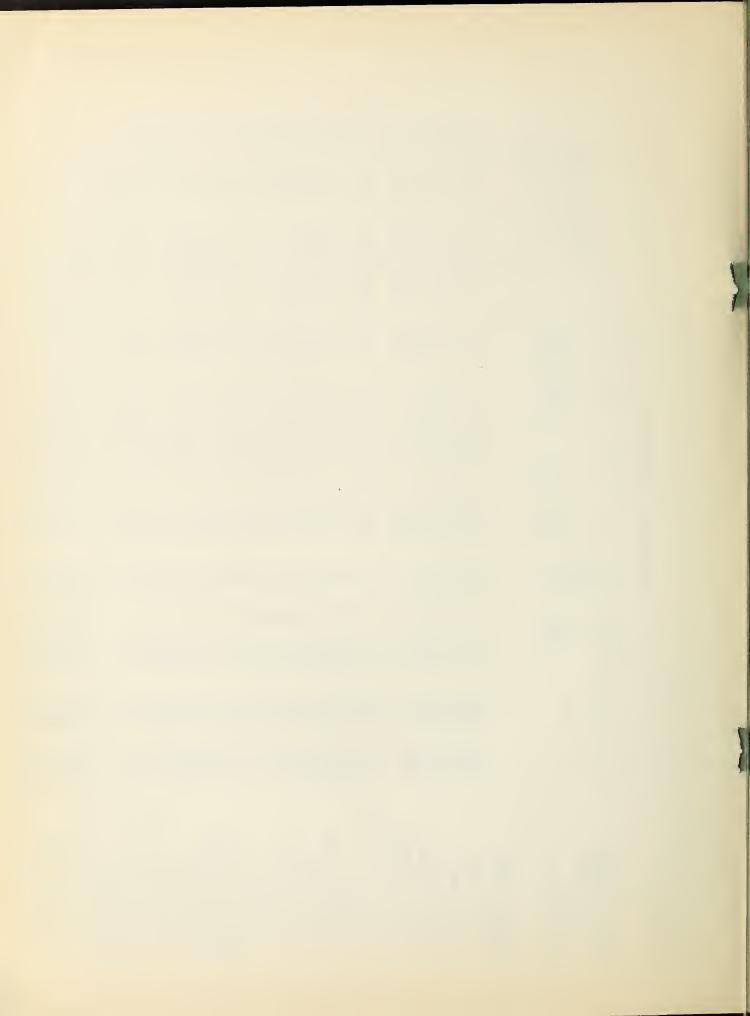
MONTANA SNOW SURVEYS AFRIL 1, 1952

| COLUMBIA BASIN        |        |       | Date         | Snow             |        |      | Water   | · Conter          | Content (Inches | (8 9)           |                         | >-    |
|-----------------------|--------|-------|--------------|------------------|--------|------|---------|-------------------|-----------------|-----------------|-------------------------|-------|
| DRAINAGE BASIN<br>AND | Noo    | Elevo | of<br>Survey | Depth<br>(In.)   | Apr. 1 |      | Past Re | Records           |                 | Average<br>Apr. | e data                  | ଦ ସ ମ |
| SNOW COURSE **        |        |       | 1952         | 1952             | 1952   | 1951 | 1950    | 1949              | 1948            | Avg.            | %AVE.                   | i i   |
|                       |        |       |              |                  |        |      |         |                   |                 |                 |                         |       |
| UPPER CLARK FORK      |        |       |              |                  |        |      |         | - di-term and di- |                 |                 | unganthay the or filely |       |
| Coyote Hill           | 13B11  | 7500  |              | 38               | 14.9   | 9    | 8       | 8                 | 8               | ı               | 1                       | po-   |
| Chessman Res.         | 1205   | 6200  | Mar. 27      | 28               | 6.7    | 9°47 | 404     | 7.6               | 2.6             | 7,06            | 116                     | 17    |
| East Fork R. S.       | 1301   | 5/100 |              | 39               | 10.3   | 9,5  | 7.6     | 10.8              | 6.5             | 5.1             | 202                     | 7     |
| El Dorado Mine        | 1309   | 7800  | Not measured | sured            |        |      |         |                   |                 |                 |                         | •     |
| Gold Creek Lake       | 1308   |       | Not measured | sured            |        |      |         | Ohr And           |                 |                 | -                       |       |
| Intergaard            | 13 C/T |       | Mar. 31      | 36               | 0.6    | 8    | 8,0     | 12,7              | 10,2            | 8.3             | 108                     | ω     |
| North Fork Jocko      | 13B7   |       | Mar. 31      | 116              | 14.6   | 45.8 | 56.3    | 0,04              | 2,947           | 39.62           | 112                     | 12    |
| Picnic Grounds        | 1306   |       | Mar. 31      | <del>d</del>     | 0.9    | 5.6  | 5°6     | 7.6               | 4.07            | 7.5             | 143                     | 8     |
| Pipestone Pass        | 1201   |       | Mare 31      | 34               | 7.6    | 8°9  | 7,02    | 7.9               | 7.4             | 5.7             | 133                     | 77    |
| Rainy Lake            | 13B6   |       | Apr. 1       | 1                | 17.0   | 5,1  | 18.9    | 14.5              | 11,0            | 11.9            | 143                     | 9     |
| Skalkaho Summit       | 1303   |       | Mare 31      | 8]               | 56.6   | 3404 | 26.3    | 36.2              | 33.7            | 25.0            | 106                     | 14    |
| Slide Rock Mt.        | 1302   |       | Apr. 1       | R                | 15.5   | 17.6 | 18,0    | 18.8              | 19,2            | 13.9            | 112                     | 16    |
| Southern Cross        | 1305   |       | Mar. 31      | 32               | 1°6    | 7°7  | 404     | 7.4               | 8,9             | 5,0             | 181                     | ω     |
| Stemple Pass          | 1361   |       | Mar. 27      | 2                | 13.04  | 1307 | 11.6    | 13.5              | 10.3            | 9,5             | 141                     | 14    |
| Storm Lake #2         | 1207   |       | Mare 31      | †γ9              | 20.5   | 15.6 | 16.7    | 16.0              | 19.7            | 14.3            | 143                     | 7     |
| Stuart Mill "         | 1306   |       | Mare 31      | 36               | 11,2   | 8°2  | 7,2     | 9,5               | 2.6             | 6.7             | 167                     | ω     |
| Stuart Mt. #1         | 1361   |       | Not mea      | sured            |        |      |         |                   |                 |                 |                         |       |
| Termile, Lower        | 1202   |       | Apr. 1       | 36               | t)°6   | 8    | 7.6     | 8,8               | 9.1             | ₽°9             | 147                     | 17    |
| Tenmile, Middle       | 1203   | 0089  |              | 7 <sup>†</sup> 8 | 13.0   | 12,0 | 12,8    | 12,8              | 1101            | 10.3            | 126                     | -     |
| Tenmile, Upper        | 1204   | 8000  | Apro         | 2%               | 15,8   | 1504 | 15.8    | 37,08             | 1801            | 1302            | 120                     | 2     |
| *49 Meadows           | 15B10  | 5000  |              | 108              | 20017  | 28.0 | 57.2    | 47.05             | 26.0            | 7046            | 117                     | 16    |
| *Above Burke          |        | 4100  |              | 79               | 22°6   | 21,0 | 26.8    | 26.8              | 18,3            | 17.0            | 133                     | S     |
| *Lookout              | 15B2   | 5250  | ٥            | 110              | 39°6   | 38.3 | 47.5    | 148.7             | 37.5            | 33.0            | 120                     | 16    |
| *Above Roland         | 15B7   | 4350  | Mar. 13      | 80               | 28,8   | 56.6 | 35°0    | 3402              | 25.9            | 24,08           | 116                     | 23    |
| *Below Roland         | 1,5B6  | 3770  | Mar. 13      | 047              | 15.1   | 9,8  | 9 3     | 21,0              | 12.7            | 11,9            | 127                     | 23    |
| *Sunset               | 15B9   | 5600  | ٥            | 24               | 33°9   | 32.2 | 3/400   | 58,1              | 58.9            | 30.0            | 113                     | 30    |
|                       |        |       |              |                  |        |      |         |                   |                 |                 |                         |       |

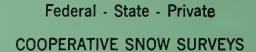


# MONTANA SNOW SURVEYS APRIL 1, 1952

| > 0 c                            | s s <sub>h</sub> o | 古 <sup>0</sup> 임 <sup>0</sup> 古古  | このとのはいいののでしているよう  | 16  |
|----------------------------------|--------------------|---|---|---|
| 0                                | %AVE               | 114<br>117<br>99<br>109<br>120  | 116<br>89<br>1124<br>1124<br>113<br>90<br>88  | 103   |
|                                  | Avge               | 25.5<br>40.1<br>12.0<br>30.3<br>15.2  | 29.5<br>146.9<br>17.5<br>39.5<br>11.9<br>11.9<br>11.9<br>11.9<br>11.9<br>12.2<br>19.8   | 34.5  |
| Content (Inches)                 | 1948               | 36.8<br>45.8<br>31.2<br>14.8  | 28.6<br>10.0<br>118.9<br>145.2<br>11.0<br>11.0<br>14.5<br>14.6<br>14.6<br>19.2  | 71.5  |
|                                  | 1949               | 38.2<br>39.5<br>19.0<br>35.5  | 23.4<br>116.9<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110.0<br>110  | 55.2  |
| Water                            | 1950               | 146.3<br>553.8<br>118.9<br>145.2  | 37.6<br>10.7<br>10.7<br>10.7<br>10.7<br>56.3<br>119.2<br>27.3<br>27.3<br>28.2<br>28.2   | 61.3  |
|                                  | 1951               | 45.3<br>9.1<br>144.0<br>11.6<br>27.5  | 27.7<br>10.8<br>10.3<br>10.3<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145.5<br>145. | 37.2  |
|                                  | Apr. 1             | 40.4<br>11.1<br>46.9<br>11.8<br>32.9  | 245 25 25 25 25 25 25 25 25 25 25 25 25 25  | 141.7<br>142.6<br>143.5<br>50.5   |
| Snow                             | (4m°)<br>1952      | 108<br>34<br>38<br>38<br>57   | 102 22 22 25 25 25 25 25 25 25 25 25 25 25  | 114<br>ured<br>110<br>115   |
|                                  | 1952               | Mar. 31 Apr. 1 Apr. 1 Mer. 28 Mar. 21   | Mer. 26 Apr. 29 Apr. 29 Mer. 27 Mer. 27 Apr. 1 Mer. 27 Apr. 4 Apr. 4 Apr. 4 Mer. 27 Apr. 27 Apr. 27 Apr. 27 Apr. 27 Apr. 27  | Apr. 2 114 Not measured Not measured Apr. 17 115 Mer. 17 150  |
| 6                                | • A DT 2           | 6800<br>5000<br>6750<br>5000<br>14700<br>5600   | 5700<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530<br>1530  | 6000<br>7000<br>6200<br>5500<br>6500  |
| )<br>                            | o<br>O<br>N        | 14A1<br>13B14<br>13B3<br>14A4<br>13A1<br>13A2   | 1443<br>14813<br>1482<br>1588<br>1445<br>1585<br>1585<br>15810<br>15810<br>15810<br>15811<br>15811<br>15811<br>15811<br>15811   | 1381<br>1563<br>1561<br>1684<br>13810   |
| COLUMBIA BASIN<br>DRAINAGE BASIN | SNOW COURSE **     | FLATHEAD RIVER Blue Bird Basin Creek Big Creek Brush Creek Cattle Queen Desert Mountain | Hell Roaring Diventology Holbrook Kishenehn Limestone Pass Logan Creek Marias Pass North Fork Jocko Quintonkon Rainy Lake Spotted Bear Mt. **Strawberry Lake Trout Lake Trout Lake Trout Lake Show Lab #16  | FEND OKIELLE Baree Mt. Freeze Out Summit Hoodoo Creek Mosquito Ridge ** Strawberry Lake ** Trinkus Lake |







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"

